

JULY 4, 1955

"Don't Take Progress For Granted" . . . p. 24

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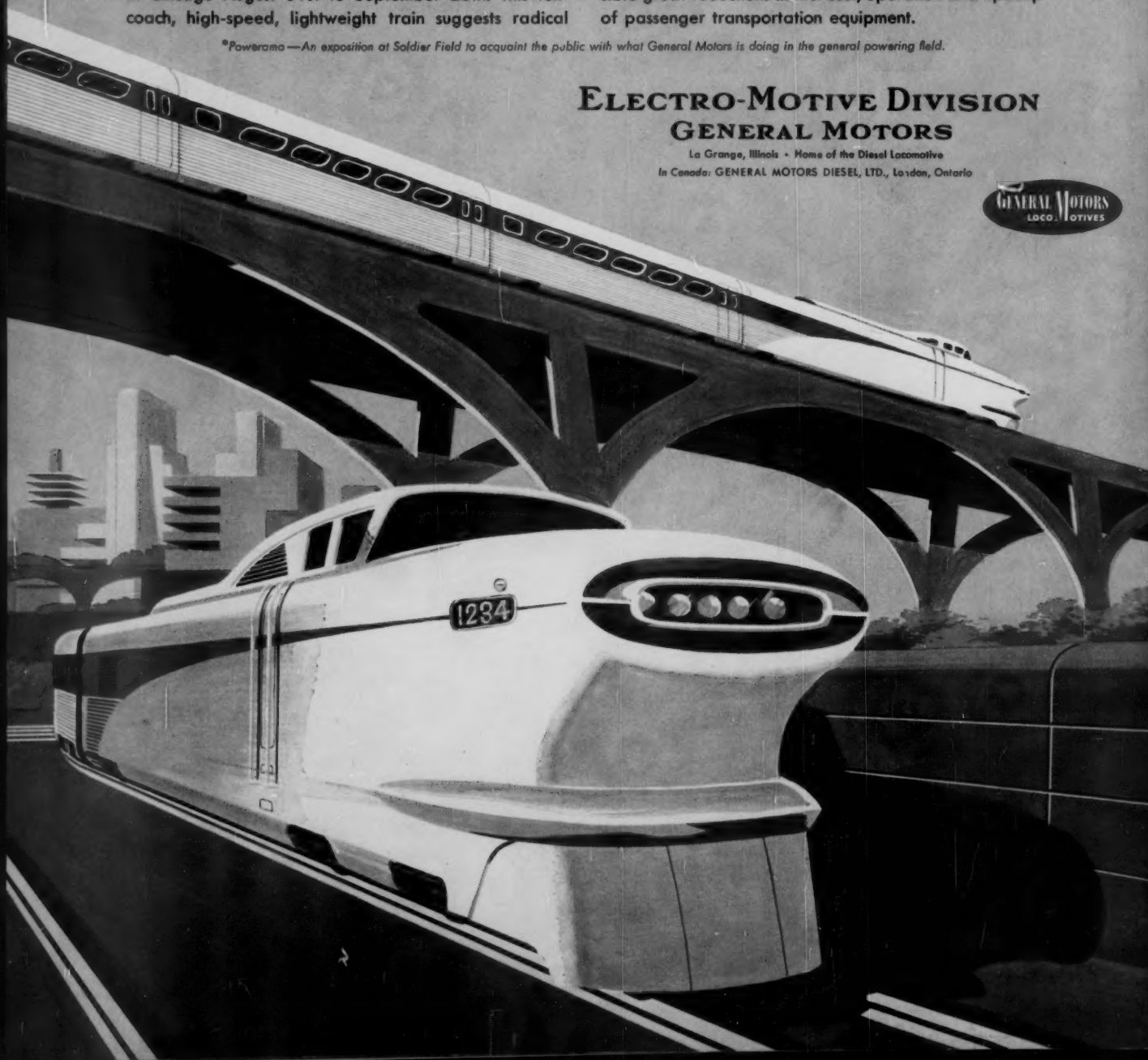
new concepts in integrated design of motive power and cars to increase attractiveness of service and make possible great reductions in first cost, operation and upkeep of passenger transportation equipment.

*Powerama—An exposition at Soldier Field to acquaint the public with what General Motors is doing in the general powering field.

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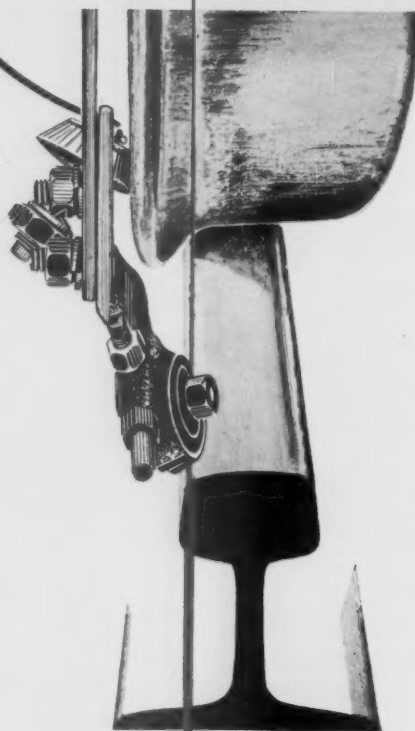
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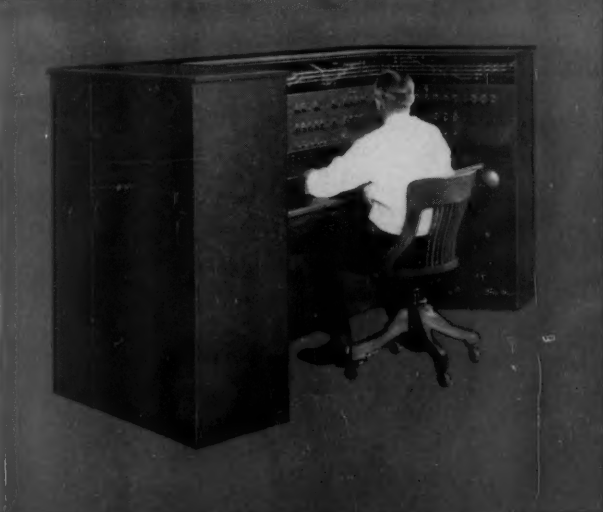
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LONDON E.C. 2, England—Sibley-Field Publishing Company, Ltd., 48 London Wall
FRANKFURT AM MAIN (16), West Germany
—Linder Presse Union GMBH, International Advertising Agency, Wittelsbacher Allee 60

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Published weekly by the Simmons-Boardman Publishing Corporation at Orange, Conn., and entered as second class matter at Orange, Conn., under the Act of March 3, 1879. James G. Lyne, president. Arthur J. McGinnis, executive vice-president and treasurer. Samuel O. Dunn, chairman emeritus. J. S. Crane, vice-president and secretary.



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July 4, 1955

Vol. 139, No. 1

Week at a Glance

With traffic increasing—and car shortages doing the same — the railroads have embarked on a definite program of increasing their serviceable car fleet, by buying new cars and repairing and upgrading older cars. 7

Further details on General Motors' new lightweight train indicate that its car bodies may be so low in cost that it may be cheaper to replace them than to repair them. 8

FORUM—A "workshop" for executives is proving valuable in the utilities field; why shouldn't management training of this nature be equally valuable for railroad officers? 23

"Don't take progress for granted," stated N. R. Crump, president of the CPR, in his opening address at the AAR Mechanical Division and Electrical Section meeting. 24

Railroads can make their own future, according to ICC Commissioner Clarke, by improving the quality and dependability of service. 26

Reports of Mechanical Division committees which met at Montreal show progressive thinking on many vital issues. 27

Trailer housing for M/W gangs is being employed on a number of roads with success—eliminates need for conventional bunk cars to accommodate floating crews. 30

BRIEFS

The New Haven plans to charge commuters who park at many of its stations. First station at which the road will levy a parking fee of 35¢ a day, or \$5.50 a month, is to be Norwalk-South Norwalk. Eventually, charges based on fees at nearby public and private parking lots



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Current Statistics

Operating revenues, four months	
1955	\$3,094,856,784
1954	3,028,533,293
Operating expenses, four months	
1955	\$2,365,972,521
1954	2,446,063,802
Taxes, four months	
1955	\$ 327,344,975
1954	296,160,835
Net railway operating income, four months	
1955	\$ 319,554,764
1954	204,981,565
Net income, estimated, four months	
1955	\$ 243,000,000
1954	132,000,000
Average price railroad stocks	
June 28, 1955	98.86
June 29, 1954	67.30
Carloadings, revenue freight	
Twenty-four weeks, 1955	16,502,507
Twenty-four weeks, 1954	15,170,107
Average daily freight car surplus	
Wk. ended June 25, 1955....	5,052
Wk. ended June 26, 1954....	73,571
Average daily freight car shortage	
Wk. ended June 25, 1955....	12,107
Wk. ended June 26, 1954....	1,237
Freight cars on order	
June 1, 1955	16,886
June 1, 1954	15,615
Freight cars delivered	
Five months, 1955	14,096
Five months, 1954	20,952
Average number of railroad employees	
Mid-May 1955	1,049,114
Mid-May 1954	1,062,414

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Week at a Glance CONTINUED

will be instituted at all commuter stations where improvements have been, or will be, made to the parking areas. Commuters have assailed the plan as, in effect, a fare rise.

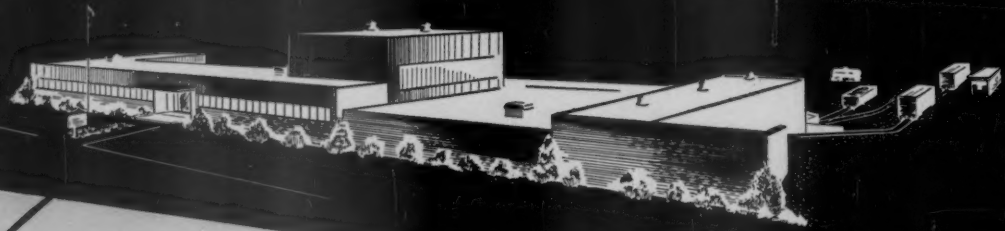
Wanted: Rusty, rusted or rolling transport equipment!

That's the call issued by the newly formed Museum of Western Transportation at Pueblo, Colo. Old steam locomotives from Moguls to Mallets, old coaches, freight cars, lanterns, signs and switch stands, as well as stage coaches, early autos, etc. are being sought for what the Pueblo Chamber of Commerce describes as a "transport museum second to none." Rides on old-time trains and stage coaches plus meals in an old time Harvey House are planned as top drawing cards.

At a showing of the Santa Fe's new film, "Challenge for Tomorrow," in New York, June 23, President Fred G. Gurley made a distinction between "improved techniques" and "improved technology." The former are "things we can do with what we've got"—they don't cost anything. The latter, on the other hand, cost money—and the Santa Fe has spent a half-billion dollars on them since Mr. Gurley became its chief executive.

Enough cases of Schlitz beer to fill 44 railroad freight cars recently moved in a specially constructed steel barge from Milwaukee to points in Texas. Shipment, comprising 77,500 cases, is said by Frank L. De Groat, general traffic manager of Schlitz, to be the biggest single shipment of beer for civilian consumption in brewing history.

"Pacific Intermountain Express has just completed an Operations Research project in which outside experts were employed. . . . It has improved our productivity in a certain field by 10% to 15%, with no increase in operating cost and no capital investment. Needless to say, I don't think PIE is through with Operations Research."—From an address by P. H. Small, vice-president, finance, PIE, to the New York Society of Security Analysts.



■ TESTING

another

SERVICE

for the

RAILROADS

■ Service has long been National's second name to the railroads . . . service through development and improvement of railroad specialties . . . service through instructing railroad personnel in the application and maintenance of railroad specialties . . . service in design changes to meet railroads' varying customer requirements and operating conditions.

■ With the opening of the National Technical Center two years ago that service was expanded to include physical testing of railroad products . . . the million pound universal test machine . . . 1,640 lb., 4,500 lb., and 27,000 lb. AAR drop test machines . . . 600,000 lb. fatigue test machine . . . coupler angling and anti-creep machine . . . impact test track . . . and supplementary electronic recording equipment.

■ Used for exhaustive testing of National railroad products these modern test machines and their facilities are also available for use by the railroads for testing rolling stock and their component parts.

■ For instance, the Iron Ore Company of Canada has authorized extensive tests on their ore cars, fully loaded with iron ore from their Quebec-Labrador mines. These cars are now on National's impact test tracks where electronic recording equipment will closely scrutinize the stresses and strains in the cars' body members.

AA-1042

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Roads Move to Increase Car Fleet

AAR members agree to purchase 38,000 new cars at cost of \$300 million, cut "bad orders" to 5%, upgrade others for high-class loading

A three-way program aimed at increasing the nation's serviceable freight car fleet by some 80,000 new or newly repaired units, and at upgrading additional cars for high-class loading, was agreed to by member roads of the Association of American Railroads at a special meeting held in Chicago on June 24.

Repair Program—The repair program, adopted as "the quickest means of increasing the serviceable freight car supply to meet anticipated traffic demands," has as its immediate goal a reduction in the number of cars awaiting repair from 6.4% of total ownership (as of June 1) to or below 5%. This repair goal, which will have the effect of adding about 25,000 cars to the serviceable supply, was formally stated in a resolution unanimously adopted at the Chicago meeting.

Upgrading—By another section of the same resolution, the AAR member roads agreed that they would, "to the extent necessary to meet requirements of their shippers," upgrade cars which are "basically serviceable but not suitable for high-class loading." No specific goal was established, however, for this part of the program.

New Cars—The new-car aspect of the three-way program was not embodied in a resolution, but was announced following an informal poll of roads represented at the meeting, in the course of which they announced their collective intention of ordering at least 38,000 new cars, to cost an estimated \$300 million, within the next few weeks or months. These cars, added to approximately 17,000 already on order, at a cost of about \$150 million, and to the 25,000 to be restored to serviceable

condition, make up the total of 80,000 new or newly repaired cars which represent the railroads' immediate goal.

No announcement was made concerning number or types of cars to be ordered by any individual railroads, but the orders, inquiries and authorizations, totaling approximately 11,000 cars, reported elsewhere in these pages indicate that some of the larger roads are acting immediately to carry out their intentions.

Fewer Cars; More Traffic—Purpose of the Chicago meeting was to rectify the situation caused by recent declines in the serviceable car fleet in the face of increased demand for cars. Since February 1, 1954, when freight car ownership of Class I roads reached a postwar peak of 1,777,080 units, there has been a decline of 57,000 in number of cars owned, and of 75,000 in number of serviceable units, both conditions reflecting the downward trend in railroad traffic and revenues in 1954. Since the first of this year, however, car loadings have increased; through the middle of June total revenue loads were about 1 1/3 million over those in the corresponding period of 1954. As a result, the substantial net surplus of cars avail-

Faricy Told by NIT League Car Situation Is Alarming

The National Industrial Traffic League has released a letter dated June 22 which it addressed to William T. Faricy, president of the Association of American Railroads, advising him of an "alarming" car shortage situation.

The letter is based on a canvass of NIT League membership as to conditions in the week ended June 11.

H. H. Huston, chairman of the league's Transportation Instrumentalities and Car Service Division, informed Mr. Faricy that there had been 629 replies to the survey. He said the league had been receiving "an increasing number of complaints of shortages of freight cars and the bad condition of many of the cars furnished for loading" before the poll was initiated.

Of the 629 replies, Mr. Huston said, "111 reported shortages . . . and generally unsatisfactory condition of cars furnished; also diversion of shipments to other forms of transportation owing to inability to secure sufficient cars for their needs." An additional 58 replies indicated shortages but satisfactory condition of cars while 35 respondents indicated no shortages but complained of unsatisfactory car conditions, Mr. Huston said. The others reported no shortage, he continued.

A Paradox—Mr. Huston told the AAR president that "it is indeed a paradox that on one hand the railroads desire to obtain additional traffic and on the other the freight car situation grows steadily worse." He said that the slump year of 1954 should have afforded the railroads time to upgrade many cars but, because, he said, little was done, "shippers are now confronted with an unsatisfactory car supply situation which could have been avoided."

Noting widespread concern over the situation, Mr. Huston said he hoped "suitable measures" would be adopted at the special meeting of the AAR which was held June 24, two days after the letter was written.

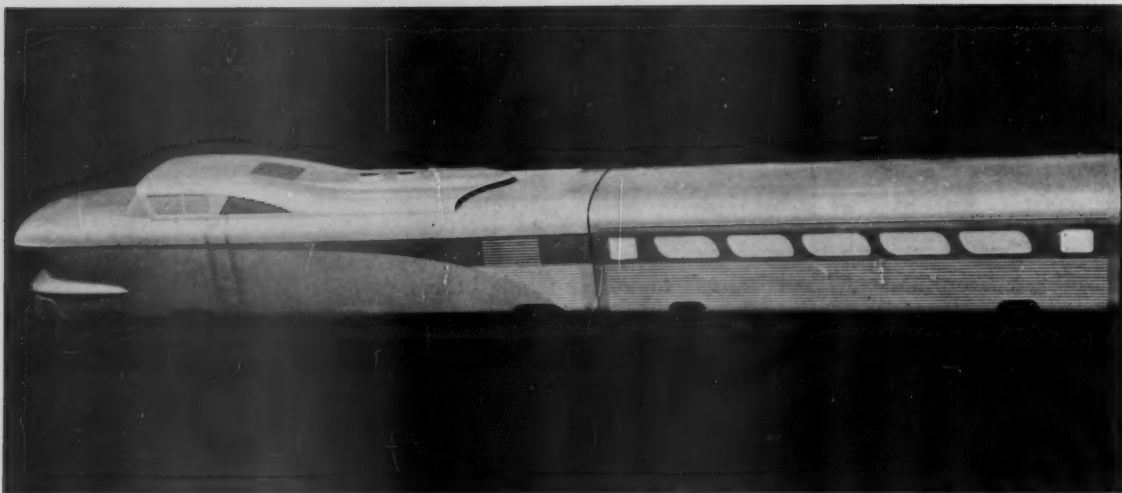
Declining Ownership—Mr. Huston also called attention to what he called "repeated representations" by the roads to the Interstate Commerce Commission in support of their petitions for various Ex Parte rate increases that additional revenue was needed to fulfill car building and repair programs. "The present car supply situation is difficult to reconcile" with this, he said. He went on to cite a recent verified statement by Mr. Faricy in the Ex Parte 175 rate case that in the 15 months to May 1, 1955, car ownership declined

55,000 cars and bad order cars increased from 5.1% to 6.6% of ownership. He said car ownership is now 40,000 cars below the March 1, 1953 level and added "when consideration is given to the number of cars which, although listed as serviceable, are unsuitable for loading many commodities and must be rejected by the shippers, the situation is most alarming."

Faricy Reply—In a June 29 response to Mr. Huston's letter, Mr. Faricy advised him of the results of the June 24 meeting.

Mr. Faricy went on to inform Mr. Huston that the railroads feel they have been hampered in their car-buying programs by expiration dates set in the Ex Parte rate increases and by the "depressed traffic" year of 1954. He said that if the roads are to make long-term commitments for new cars, the expiration dates of the Ex Parte 175 rate increases must be removed. He added that rising costs of about \$459,000,000 annually have not been offset by increased rates and pointed out that "an industry operating on such a deficient rate of return as the railroads quite understandably has to defer ordering new cars."

Equipment obligations cannot safely be increased very much, Mr. Faricy said, unless net earnings increase.



MODEL indicates the relative size of the locomotive and the cars, and shows the single two-wheel idler axle which will sustain weight at the rear of the locomotive. One 12-567C GM diesel engine, mounted conventionally inside the 53-ft locomotive, will furnish 1,325 hp for traction. Current for train heating, lighting and air conditioning

will be furnished by generators operated by two GM 6-110 Detroit diesel engines, also mounted within the locomotive body. Top of the cab will be 13 ft, 7 in. above rails. Some details may vary slightly in the final version of the train, which will be shown publicly at the General Motors "Powerama," beginning August 31 in Chicago.

More Details on GM's New Train

First cost expected to be so low that replacement of worn-out car bodies may prove more economical than repair

Ending months of speculation and rumor, General Motors Corporation confirmed in mid-June that it is building two lightweight passenger trains for tryout by American railroads.

Following GM's announcement, *Railway Age* visited GM's Electro-Motive Division plant at LaGrange, Ill., to look over workshop models from which the final trains are now taking shape. Pictures and information on these pages were obtained through that visit, and are presented as the first detailed report of trains the entire railroad industry has wondered about.

When GM President Harlow H. Curtrice termed these trains a "new concept" in passenger train design (*Railway Age*, June 23, page 7), he spoke

of the relationship of the size and capacity of their locomotives to the size and capacity of the trains. "In the past," he said, "locomotives have been designed to provide the best possible compromise to meet wide variance in existent passenger equipment — in weight, heating, lighting and air conditioning. When the committee of railroad presidents asked car builders and locomotive manufacturers to tackle the passenger equipment problem, we had, for the first time, an opportunity to select the most economical prime mover and match it with a train to obtain the ultimate in utilization and economy. The size of the propulsion engine, the size of the auxiliary engines, the size and weight of the cars, for instance,

have been determined by the contribution each makes to the most successful whole, from the standpoint of performance, first cost, operating cost, maintenance, repair costs and safety."

Low-Cost, Low-Weight Car—The new type of car body is so low in first cost it is expected, according to GM spokesmen, to prove more economical to discard a worn-out body and replace it with an entirely new body on the old underframe, than to put the old body through the present expensive practice of rebuilding. These bodies are adapted from General Motors' Truck & Coach Division's 40-passenger buses, but are widened 18 in. to give more seating space in the cars, and a wider aisle.

The GM coaches will have a welded steel underframe, so designed as to carry strength out to the sides for maximum safety. A 3-in. space will separate the steel subflooring—an integral part of the frame—from the flooring in the passenger compartment of the cars.

Within this space will be one inch of dead air and two inches of Fiberglas insulation. The floor itself will be of 7/8-in. exterior plywood, topped by a 1/8-in. rubber mat. The seats will be bolted through this and direct to the steel subflooring.

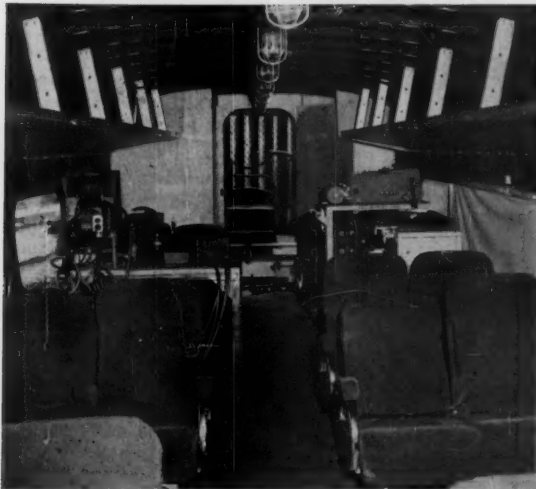
One end of each car will have a vestibule with entrances on both sides. Folding steps are designed to accommodate passengers at both high and low platforms. The other car end will contain a lavatory and an airplane type pantry able to serve up to 40 meals.

Present plans for the test trains are for various feeding arrangements, including pre-cooked meals and perhaps vending machines.

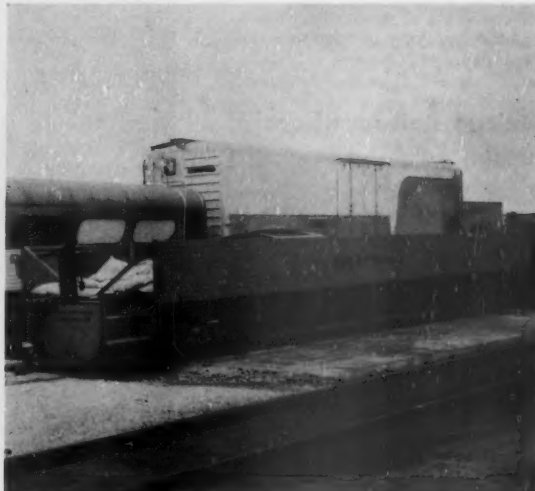


TEST CAR, unpainted and loaded with research equipment, indicates general appearance of individual coaches. Already subjected to extensive road testing, this purely experimental unit has passed all initial buffing strength

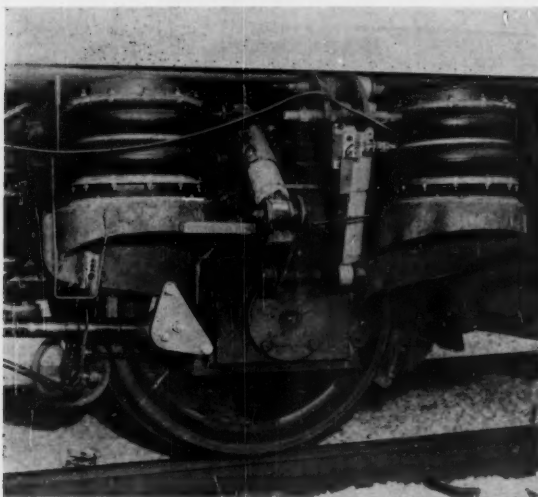
tests successfully. This coach type is dubbed AR-40 by GM development engineers because of its air-ride suspension, 40-passenger capacity, 40-ft length and under 40,000-lb weight. Note positioning of single-axle trucks.



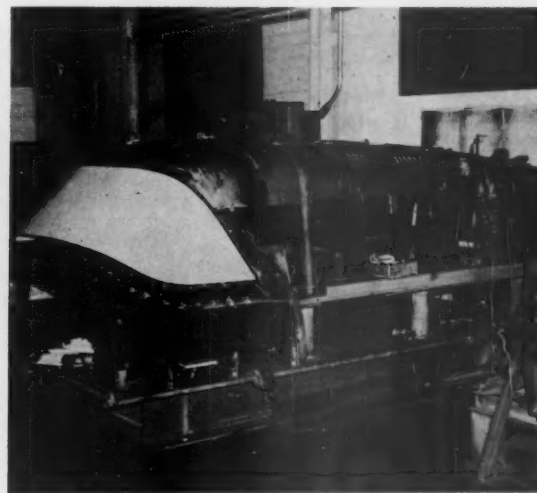
UNFINISHED INTERIOR of test car affords some idea of passenger compartment dimensions as compared to those in a conventional coach. Seats and other fittings here are solely to test the ride in various locations in the cars and are not representative of the furnishings which GM plans for the train. For example, general lighting will be provided by four four-foot fluorescent tubes, and individually-controlled airplane-type reading lights will be built into the overhead parcel rack.



A SAND-BAGGED TEST COACH, minus superstructure, shows bin-like construction in underframe. Compartments, from left to right, are for vestibule step, truck, air brake equipment, baggage (2), air conditioning equipment, truck and water storage tank. Attached beneath each tightlock coupler will be a box containing all connections needed for air, steam and electric lines. These connections will join automatically upon impact, thus eliminating the need for "coupling up" air and steam lines.



REVOLUTIONARY TRUCK has single axle and bellows-type air suspension in lieu of conventional steel springs. This is but one of several types being tested by GM engineers; here, it is draped with wires, cables, etc., connected with recording instruments.



ACTUAL LOCOMOTIVE CAB takes shape in the LaGrange plant of GM's Electro-Motive Division. EMD spokesmen have indicated that final windshield will be a full wrap-around, but subdivided into sections with slender posts at corners and center.

The car bodies will be comprised of steel carlines and purlines over which will be laid an exterior sheathing (above the floor) of anodized aluminum. Below floor level, the sheathing will be steel of a similar pattern.

Springs of Air—The air suspension system will help insulate the coach body from noise and shock of steel wheels on steel rails. This system also aims to provide self-compensation for

body variations due to load changes, centrifugal force on curves, etc., thereby providing a level ride. A separate air line from the locomotive feeds the system. An outside rubber cap pedestal mounted between the bellows (see photo) will support the car body in the event of damage to the bellows or loss of air pressure for the suspension system. The shock absorbers are planned to help dampen lateral and

vertical motion. Actual location for mounting the shocks was still tentative when photograph was made.

Because the locomotive will have a dynamic braking system, which GM expects will meet all requirements except holding the train stationary and for emergencies, the composition-shoe single brake on each car wheel will be so seldom used that, GM believes, it should last the life of the car.

able at the beginning of this year has been converted to a shortage which is currently averaging in excess of 10,000 cars a day.

Mexican Railways Receive German Equipment

To further a program of improved service on the Southeastern and Sonora-Lower California Railroads, the Mexican Secretariat of Communications and Public Works has just acquired passenger rolling stock manufactured in Germany.

The equipment was built according to plans and specifications prepared by technicians of the Secretariat of Communications, and of the German equipment builders, Linke-Hoffman-Busch. Its principal characteristics meet standards established by the Association of American Railroads.

The Southeastern line has received eight express cars; eight combination mail-express cars; seven 80-passenger, air-conditioned second-class coaches; five 64-passenger, air-conditioned first-class coaches; and three fast, light-weight two-unit trains, each seating 108 people. These trains are driven by diesel motors and the two units can be operated together or separately. Each has an electric kitchen, a baggage compartment, and reclining seats, and is air-conditioned.

For the Sonora-Lower California line there are six combination mail-express cars, eight first-class coaches and eight second-class coaches, of the same construction as the coaches for the Southeastern.

LOCOMOTIVES

The **Midland of Manitoba** has ordered one 900-hp diesel switcher from General Motors Diesel, Ltd., at an approximate cost of \$126,000. Delivery is scheduled for next January.

The **New Haven** has ordered from Fairbanks, Morse & Co. two 1,700-hp. diesel-electric locomotive units, one of which will be used at each end of the double-ended Talgo train which the NH has on order from ACF Industries.

The **Seaboard Air Line** has ordered 10 1,750-hp diesel road-switchers from the Electro-Motive Division of General Motors Corporation at a cost of \$1,600,000. Electro-Motive also will rebuild and convert 12 other SAL diesel units from 1,350 hp to 1,750 hp at a cost of \$1,500,000. The units to be converted, purchased in 1942-43, were among the first freight locomotives to be acquired by the railroad. Deliveries of both new and rebuilt units are expected to begin in September and be completed by December.

The **Southern** has ordered five 1,200-hp "Trainmaster" diesel units from Fairbanks, Morse & Co. at an approxi-



THESE THREE ORE UNLOADERS and a conveyor system powered by General Electric motors and controls feed ore from ships of many nations to railroad cars bound for U.S. industries. The Cottman Company unloader in the foreground on the Canton's ore pier at Baltimore was designed and built by Heyl & Patterson, Pittsburgh. The 1,136-ft-long conveyor running the length of the pier and the onshore weigh station, as well as the unloaders, were added last year. Since then the new facilities have been able to unload two ships in the time it formerly took to unload one.

mate cost of \$1,200,000. The units were delivered in June.

FREIGHT CARS

The **Erie** directors have authorized purchase of 1,000 box cars at an estimated cost of \$8,000,000.

The **Gulf, Mobile & Ohio** has ordered 400 50-ton 50½-ft box cars from ACF Industries. Deliveries are to begin next November. The road's inquiry for 200 box cars was reported in *Railway Age*, June 6, page 7.

The **Kansas City Southern** has ordered 300 50-ton box cars from ACF Industries at an estimated cost of \$1,900,000 for delivery in the first quarter of 1956.

The **Maine Central** has ordered 250 box cars from ACF Industries at an estimated cost of \$1,900,000 for delivery in December and January.

The **New York Central** is inquiring for 3,000 50-ton box cars.

The **St. Louis-San Francisco** board of directors has authorized purchase of 2,000 freight cars to cost \$16,000,000. Included are 700 50-ft box cars; 650 40-ft box cars with 8-ft doors, Nailable Steel Flooring and rubber draft gears; 200 70-ton roller-bearing-equipped covered hopper cars; 200 65-ft drop-end mill-type gondola cars; 100 50-ton 53-ft flat cars; and 150 wood rack cars. The last two lots will be built in company shops and will have cast steel underframes.

The **St. Louis Southwestern** has ordered 75 50-ton flat cars from the

Greenville Steel Car Company at an approximate cost of \$540,000 for delivery in October.

The **Seaboard Air Line** has ordered 1,400 freight cars costing approximately \$10,700,000. Pullman-Standard Car Manufacturing Company will build 1,000 50-ton 50-ft box cars; Bethlehem Steel Company, 200 70-ton covered phosphate cars; and ACF Industries, 200 70-ton covered cement cars. Delivery of the box cars is expected to be completed by end of the first quarter of 1956, while delivery of the covered cars is scheduled for completion by the end of 1955.

The **Southern** has ordered 1,500 70-ton hopper cars at a cost of over \$10,000,000. Half the cars will be built by the Pullman-Standard Car Manufacturing Company and half by ACF Industries. Deliveries are expected to begin next October. The road's inquiry for these cars was reported in *Railway Age*, May 30, page 10.

The **Western Maryland** has ordered 400 70-ton hopper cars equipped with Timken roller bearings from the Bethlehem Steel Company, at an estimated cost of \$3,300,000. Delivery is scheduled for October.

SPECIAL

The **Southern Pacific** has ordered two magnetic-drum data-processing machines, type 650, from International Business Machines Corporation, to supplement, and in some cases replace, mechanical punched card equipment now used extensively by the road. P. J. Kendall, SP general auditor, addressing the Pacific Railway Club on June 23,

said the rental cost of certain larger data-processing machines—\$25,000 to \$30,000 a month—“poses a problem as to the possibility of realizing sufficient return to warrant such a large expenditure. . . . We have concluded that smaller systems renting for around \$10,000 a month . . . are more adaptable to our present needs.”

PASSENGER CARS

The Chicago & North Western has ordered 16 gallery-type air-con-

ditioned suburban coaches from the Pullman-Standard Car Manufacturing Company at an approximate cost of \$2,240,000. The cars will be basically similar to the 16 recently delivered to the C&NW (*Railway Age*, April 4, page 10). Performance of the recently delivered cars, and commuter reaction to them, has been studied, and as a result minor modifications will be made in the design of the second lot, including a change in seating. The study indicated commuter reaction to the new cars has been “highly enthusiastic.”

Law & Regulation

Mitchell Suggests “Passenger Support”

NYC’s Young agrees with ICC chairman’s proposal for passenger service subsidies—Other railroad officers of varied opinions

Interstate Commerce Commission Chairman Richard R. Mitchell, speaking before the AAR Accounting Division meeting at Atlantic City on June 28, suggested that the government subsidize passenger travel on the nation’s railroads to help wipe out the industry’s passenger deficit which last year amounted to \$669.5 million for Class I roads.

How such subsidies would be handled, Mr. Mitchell did not say. “We do not like the word ‘subsidy,’” he said. “Out in the Middle West we don’t use that word. We call it ‘price support.’ Why not call it ‘passenger support?’ If passenger trains are needed in the public interest, why shouldn’t the public assist in carrying the cost instead of forcing upon the shippers of the nation the burden of paying the passenger deficit?”

Mr. Mitchell cited figures furnished by the coal industry which showed, he said, that this industry alone pays an additional 7% in freight rates because of the passenger deficit.

Other ICC members pointed out that Mr. Mitchell’s recommendation was his own and did not constitute a statement of commission policy.

Young Agrees—Robert R. Young, chairman of the New York Central, said that for Mr. Mitchell’s “convincing plea” the railroads owe the ICC chairman a “debt of gratitude. The passenger and commuter services of the railroads, which have been rattling out at an accelerated pace for several decades, will crash on the dump heap within the next one unless the President’s and Judge Mitchell’s goal of equality of subsidy, taxation and regulation in transportation is realized.”

“We in the Central,” he said, “would rather give good service and be subsidized than to give poor service and be criticized by the passengers.”

“Certainly,” Mr. Young added, “it

would be better to have our competitors desubsidized just as it would be better for all of us to be de-taxed! But so long as we are so prodigally tapped at the bung-hole to build airways, waterways and highways and terminals for our competitors, we in the Central, at least, are not too proud to welcome a little reciprocity at the barrel head.”

Comments by presidents and traffic officers of other railroads, many of whom declined to be quoted by name, indicated varying attitudes toward Mr. Mitchell’s proposal.

Airlines Not Opposed—Officials of the Air Transport Association took a lenient view of Mr. Mitchell’s remarks. “We certainly wouldn’t lead any program to subsidize the railroads,” said one spokesman, “but if railroads really want subsidies they won’t encounter much opposition from airlines.”

ICC Authority Seen Cut in Cabinet Report Enactment

Enactment of the proposals of the President’s Cabinet Committee on Transport Policy and Organization should take the Interstate Commerce Commission out of the role of a “business manager,” according to Louis S. Rothschild, undersecretary of commerce for transportation.

It would revise the National Transportation Policy “to indicate,” he said, “that the regulatory body’s responsibility is primarily that of an adjudicator.”

Mr. Rothschild’s comments were included in a speech delivered for him at a meeting of the board of governors, Regular Common Carrier Conference at Minneapolis, June 24, by Edward Margolin, program coordinator in the undersecretary’s office.

The undersecretary said the Cabinet

Committee report (*Railway Age*, April 25, page 49) recognized that the present declaration of transportation policy “places undue restraints upon competitive rates and service experimentation.” The President’s committee would rectify this situation, he said, “by giving carriers more rate flexibility.”

This would not, however, Mr. Rothschild declared, abolish or emasculate “that regulation required to protect the public and to help maintain a healthy transportation industry.” What it would do, he said, would be to “harmonize” regulatory rate policies with actual competitive conditions.

Competitive rate-making does not mean, he insisted, “ruinous price competition,” but in the intent of the Cabinet report would give carriers “a zone of reasonableness” within which they could compete “by adjusting prices in accordance with cost and service considerations.”

As to fears that the committee’s rate proposals “would effectively demolish the trucking business,” Mr. Rothschild said the ICC would retain “adequate authority” to protect both the shipper and the trucker against excessive, discriminatory or unfair rates.

Further, he went on, the committee proposed no change in laws governing “acquisition or control of motor carrier facilities by railroads or rail operation of trucks.”

ICC Division Dropped In New Reorganization

Another step in the reorganization of the Interstate Commerce Commission based on recommendations of the Wolf survey (*Railway Age*, February 9, 1953, page 16) was announced June 23.

Effective July 1, the move consisted of elimination of one ICC division and changes in some of the work assignments of the commissioners.

The Wolf survey was conducted over a six-month period by the Wolf Management Engineering Company. Recommendations growing from the study included proposals for establishment of an office of managing director in charge of administrative functions and consolidation of ICC staff bureaus into three staff officers and six administrative bureaus.

Division 1, which handled most of the ICC administrative work before the post of managing director was set up, was abolished in the latest action. Its remaining functions, which included responsibility for accounts, records and reports, and enforcement of penalties and prosecutions, were divided among other divisions or assigned to particular commissioners.

The Motor Carrier Division, heretofore listed as Division 5, has been reclassified as Division 1. The other divisions retain their present designations which are: Division 2—rates, tariffs and valuations; Division 3—rates, safety and service; and Division 4—finance. (Responsibility for rate

matters is rotated on a monthly basis between Divisions 2 and 3.)

Hugh W. Cross, elected ICC chairman as of July 1, will not be regularly assigned to any of the divisions but will be chairman, ex officio, of the commission's legislative and rules committees.

Division chairmen following the reorganization are: Division 1, Richard F. Mitchell; Division 2, J. Haden Alldredge; Division 3, Anthony F. Arpaia; and, Division 4, J. Monroe Johnson.

Among the changes effected in the reorganization are the following assignments:

Division 1, to be the division through which the Bureau of Motor Carriers will report.

Division 2, to have responsibility for instituting investigations of intrastate rates, fares and charges, classifications and practices under section 13 (3) of Part I and section 406 (f) of Part IV on the petition of carriers or freight forwarders.

Division 4, to be responsible for matters arising under section 20c, providing for the recording of equipment trust agreements and other documents relating to lease or conditional sale of railroad equipment.

The commission chairman will be responsible for publication of statistical releases and for claims arising under the Federal Tort Claims Act, except claims covered by section 2672 of that act.

Particular divisions having jurisdiction over the issues involved will assume the enforcement and prosecution authority held by the old Division 1.

The commissioner through whom the Bureau of Transport Economics and

Statistics reports will have authority to grant carriers, other than motor carriers, extensions of time for filing annual, periodical and special reports and to grant exemptions from the reporting and accounting requirements.

The commissioner through whom the Bureau of Accounts, Cost Finding and Valuation reports will have similar authority with regard to motor carriers.

In addition, this commissioner will have authority to make administrative rulings with respect to the uniform classifications of accounts; prescribe rates of depreciation to be used by individual railroads, water carriers and pipe lines; and issue special authorizations governing destruction of carriers' records.

Parliament to Give CNR More Freedom

The lower house of the Canadian Parliament has passed—and the Senate is expected to pass—a five-point Canadian National Railways Act which would: (1) Authorize the CNR to operate a telecommunication system, including all subsidiaries; (2) permit officers and employees to act as directors of partially owned companies; (3) empower the railroad to build short lines, not exceeding six miles in length, without specific authority from Parliament; (4) allow it to operate motor vehicles as a substitute for train service that has been abandoned; and (5) provide procedure for extinguishing charters of constituent corporations.

The third provision of the act, relating to short branch lines, sidings

or industrial spurs, extends to the CNR a privilege already accorded other Canadian railways. The truck-operation authority is reportedly so worded as to eliminate opposition previously expressed by truck operators.

IC Seeks Changes In Commuter Schedules

The Illinois Central is seeking what it terms "the most extensive revisions in schedules and service of its commuter lines since the service was electrified in 1926."

The changes are designed to reduce service in the area close to the downtown district and to expand service to outlying suburbs. Growth of those suburbs, and slim patronage of inner district services, are cited as reasons for seeking the changes.

Coupled with the application before the Illinois Commerce Commission are plans for a group of station and track improvements totaling \$100,000 in cost. Three stations in the inner, local service district will be retired and the Roosevelt Road station platform will be enlarged.

Magnuson Dims Prospects For Cabinet Report Action

The already none-too-bright prospects for Congressional action this session on the Cabinet Report on Transport Policy were further dimmed last week by Senator Magnuson, Democrat of Washington.

Speaking at a conference of the Teamsters Brotherhood at Los Angeles June 27, Senator Magnuson, chairman of the Senate Interstate and Foreign Commerce Committee, had this to say:

"Before this cabinet proposal begins to move I intend to find out who prompted the recommendations and why. As far as I can tell the railroads have just had their best year in history, and if they're doing this well under the regulations as they stand, I'm going to have to be convinced before any major changes are made."

Earlier in his address, the senator had said that he had been unable to find out "whoever wrote the recommendation." He said he had not been consulted, members of the Interstate Commerce Commission had not been consulted, and representatives of the

(Continued on page 15)



THIS "BETTER FARM SPECIAL" was recently operated by the Georgia & Florida to demonstrate the advantages and techniques of irrigation. The train, co-sponsored by the Georgia State Agricultural Extension Service and the Sprinkler Irrigation Association, made 10 stops during a five-day trip over the G&F. It con-

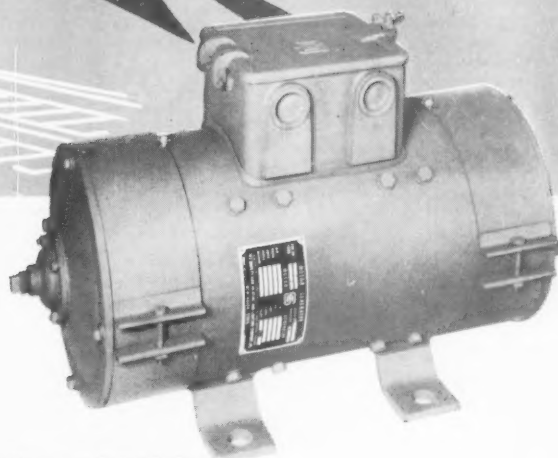
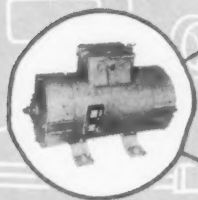
sisted of a diesel locomotive; two flat cars to hold exhibits by irrigation equipment manufacturers and serve as a speaker's platform; a tank car to supply water for demonstration of a portable aluminum sprinkler system displayed by the Aluminum Company of America; and a business car for personnel traveling with the train.

Briefly . . .

. . . Steel superstructure of the Canadian National's new Montreal hotel, the Queen Elizabeth, will be entirely electric-welded, making it the largest building in Canada to employ that type of construction. Erection of steel, now under way, is expected to continue until 1956.

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321258	200	64 DC	32 DC	2500	cab signaling and train control
B1042	300	64 DC	32 DC	2200	cab signaling and train control
319090	1500	64 DC	32 DC	3900	cab signaling, train control, headlight, communication equipment
314131	300	64 DC	115 AC	1800	radio equipped diesel locomotives, requiring 115 volts AC, 60 cycle, single phase power
B1249	225	64 DC	32 and 350 DC	2400	for dual voltage requirements for cab signaling and train control

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Law & Regulation

(Continued from page 12)

truckers and airlines—with whom he'd spoken "informally"—had not been consulted. He said the "Maritime people

... are just about as unhappy with these proposals as you are."

Mr. Magnuson admitted he had not "gotten too far in the analysis of the recommendation. The present session of Congress certainly won't because my committee has too many other important things to do before adjourning."

Competitive Transport

"Coordinate to Beat Competition"

"Get together," Knudson advises railroads and common carrier truckers — Suggests farm-to-market piggyback

The outlook for regulated carriers—rails and trucks alike—"is not a bright one," unless they are "allowed to meet the competition, not only of each other ... but of the private and exempt carriers who have become so much of a factor in the total scheme of things," former Interstate Commerce Commissioner James K. Knudson said in a recent address before the Association of Eastern-Central Motor Carriers (New York area).

Concern and Coordination—The commission, its former member declared, "ought to look with great concern upon this competition ... and, wherever feasible, allow the regulated carrier to meet it. ... Meantime, I suggest a larger degree of coordination between the various types of carriers to meet the threat of the illegitimate exempt carrier head-on, on an economic basis. Those carriers are not invulnerable nor invincible."

Mr. Knudson cited four reasons—and implied a fifth—for the "fast and cumulative inroads" made by private and exempt carriers. The four were:

(1) The 80% increase in average railroad freight rates since 1946, "with motor carrier rates having in the main followed the rails' patterns";

(2) The 3% federal tax on common carrier freight transportation—an "economic windfall" which, in effect, gives private carriers "initially a 97% operating ratio";

(3) The fact that the ICC has no duty "to encourage fair wages and equitable working conditions" among exempt or private carriers, and that "unions have not as yet been able to organize these carriers"; and

(4) The tendency of the regulated carrier "to select his traffic, to discriminate among his shippers, to pick and choose the loads in terms of what weight and distance he would carry."

"Short Sighted TMs"—His fifth reason was implied in sharp criticism which he leveled elsewhere in his talk at "short-sighted traffic managers who jockey private carriage against legitimate contract or common carriage for short-term gains." "If," he said, "they bring about the dissolution or financial ruin of the authorized carrier, their companies will lose more in the end than they will gain in the middle."

The former commissioner emphasized the seriousness of the situation by quoting from the commission's own reports on "buy and sell" activities of private carriers; and by citing numerous cases of what he classed as "illegitimate" private haulage.

Among the latter were instances of an oil company that was low bidder on a government contract because it elected to transport its oil in "owner-operator" equipment; and of a meat packer who, to get a backhaul, went into the sugar business, to make a profit on the sugar from its transportation alone.

Picture Not All Dark—From the regulated carriers' standpoint, however, the picture is not all dark, in Mr. Knudson's opinion.

For one thing, "there are many who

now believe it is time to retry some of these private carrier situations in the light of developing abuses of a widespread nature." The ICC "now is armed with combat material to prosecute." Another avenue is "enforcement of the law as it stands," provided common carriers will "support the commission in getting adequate funds to enlarge" the enforcement function of the commission.

Farm - to - Market Piggyback—Until such legal approaches can be adopted, however, Mr. Knudson reverted to his suggestion of "a larger degree of coordination" between the various types of carriers. As an example of how such coordination might be worked out, he suggested "farm-to-market piggyback" as one way of combining rail and truck service.

"Railroads," he said, "have lost a great deal of [agricultural] traffic to the exempt hauler, because the railroad cannot get out into the field where the produce is grown but must await its delivery at some railroad loading point." The common carrier by motor, on the other hand, can get to where the produce is available at origin, "but does not have access to the market places that have been developed by the railroads through the years for agricultural produce."

"Here is a beautiful opportunity for the wedding of rails and common carrier motor carriers in a manner designed to effect delivery of agricultural produce, particularly perishable produce, directly from farm to market place in a coordinated trailer-on-flat-car movement."

(More News on page 42)



OVERSEAS PACKING being finished up on two of 19 diesel units ordered from Alco Products by Pakistan's North Western Railways. The order—two specially designed "World" locomotives and 17 1,600-hp road switchers—is being shipped from Alco's

Schenectady, N.Y., plant. Deliveries will continue through August. Because Pakistani railroads have one of the widest gages in the world, 5 ft 9 in., the locomotives' trucks do not fit U.S. rails, and the units have to be shipped on flat cars to dockside.

Questions and Answers FOR THE TRANSPORTATION DEPARTMENT

The late L. F. Loree, in his book "Railroad Freight Transportation," devoted some space to the position of division accountant. Mr. Loree recommended such a person should be at the "seat" of operations on a division so operations could be depicted clearly in accounts. Since the position of division accountant has been abolished on most roads, how are the objectives cited by Mr. Loree being obtained? Two answers to this question were given in the June 20 issue. Here is another.

Information delayed—but gets there.

"We have centralized our accounting to effect economies and to permit the highest degree of mechanization. However, we have not found it difficult to give division operating officers the information they need to gage their efficiency. A great deal of this information still is available on the division. In freight service, for example, division officers have available each day the number of freight trains run and the train loads. By checking these factors, together with the overtime, they can determine today what their freight train efficiency was yesterday. In passenger train operations, service is generally fixed and the most important thing for the local officers to do to have an efficient passenger train operation is to keep trains on time. In yard service the division people know daily how many yard engine tricks are being worked at various locations. By watching the traffic trend, overtime, interchange of cars, etc., they will know currently whether or not efficiency is improving. This information is followed up by reports from the accounting department which permit division officers to measure their efficiency in dollars and cents.

"One report shows the total cost of transportation expenses on each division, and shows the labor and total expenses for each primary account. It also shows the total expenses for each account for the same month last year with the amount of increase and decrease as compared with the current year. This report contains a brief description of the items covered by each primary account.

"A report is made covering the cost of handling engines at each of the principal locations on each division, and is prepared on a comparative basis with the previous month, and the previous year. On it are shown the number of engines handled, total man-hours worked, direct labor cost, average cost per engine and average man-hours per engine.

"The amount of overtime worked by each class of employees on the division is covered on another form. By analyzing this report, officers of each division readily can see which department is working an excessive amount of overtime. Each class of service is also broken down to show the particular type of overtime payment that was made. An analysis of this report will give the division officers a picture of where the overtime is being worked, as, for example, final terminal delay, held away from home terminal, deadheading, etc. This report is particularly valuable to division officers since they investigate any excessive amount of time being paid for these classes of overtime.

"The following forms showing information for all divisions and the system as a whole also are sent to personnel of each division and to system officers:

"(1) A report is made on a comparative basis of the current year with the previous year, and shows train-miles, gross ton-miles, average gross tons per train, net tons, average net tons per train and cost per thousand gross ton-miles and per net ton-mile. This report covers only the freight proportion of the transportation operating expenses and gives a very clear picture of the cost per ton for hauling freight.

"(2) Another report covers the cost of operation of yards at all principal terminals on the railroad. This statement shows, on a comparative basis with the previous year, total cars handled, total engine tricks worked, total engine-hours worked, number of cars handled per engine-hour, wages paid for yard crews, cost per car for handling cars in the yard, and average cost per switch engine-hour. The number of cars handled and the number of engine tricks worked is furnished the accounting department by the division, and the information is compiled by that department. Analysis of this report will indicate to division officers where their expense per car, or expense per switch engine, may be out of line.

"(3) We have a form showing monthly freight train, passenger train and locomotive performance on each division compared with the same month last year, and system direct expenses and cost per hour for freight and passenger train and engine services.

"I do not believe the centralization of our accounting has had any appreciable effect on the information that is furnished our operating officers. However, the distance between the division office and the centralized accounting office does not enable us to get this information to the division officers until a few days later than the date they were getting this information from the former division accounting office."—D. B. Jenks, executive vice-president, Chicago, Rock Island & Pacific.

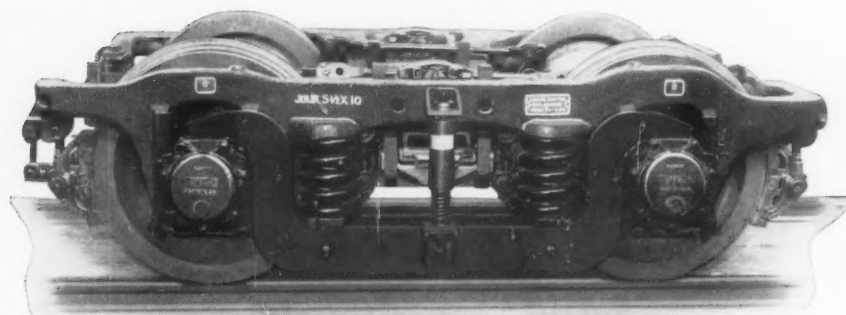
[The last paragraph of Mr. Jenks' letter mentions delay in getting reports to division officers. There has been a lot of talk—and some activity—lately about giving operating officers up-to-the-minute reports. A question raised by Mr. Jenks' letter then would seem to be: Which—if any—reports should be up-to-the-minute, and why? Is it possible that there may be some over-emphasis on being "up-to-the-minute" with some reports?—G.C.R.]

CONDUCTED BY G. C. RANDALL, district manager, Car Service Division (ret.), Association of American Railroads, this column runs in alternate weekly issues of this paper, and is devoted to authoritative answers to questions on transportation department matters. Questions on subjects concerning other departments will not be considered, unless they have a direct bearing on transportation functions. Readers are invited to submit questions, and, when so inclined, letters agreeing or disagreeing with our answers. Communications should be addressed to Question and Answer Editor, Railway Age, 30 Church Street, New York 7.

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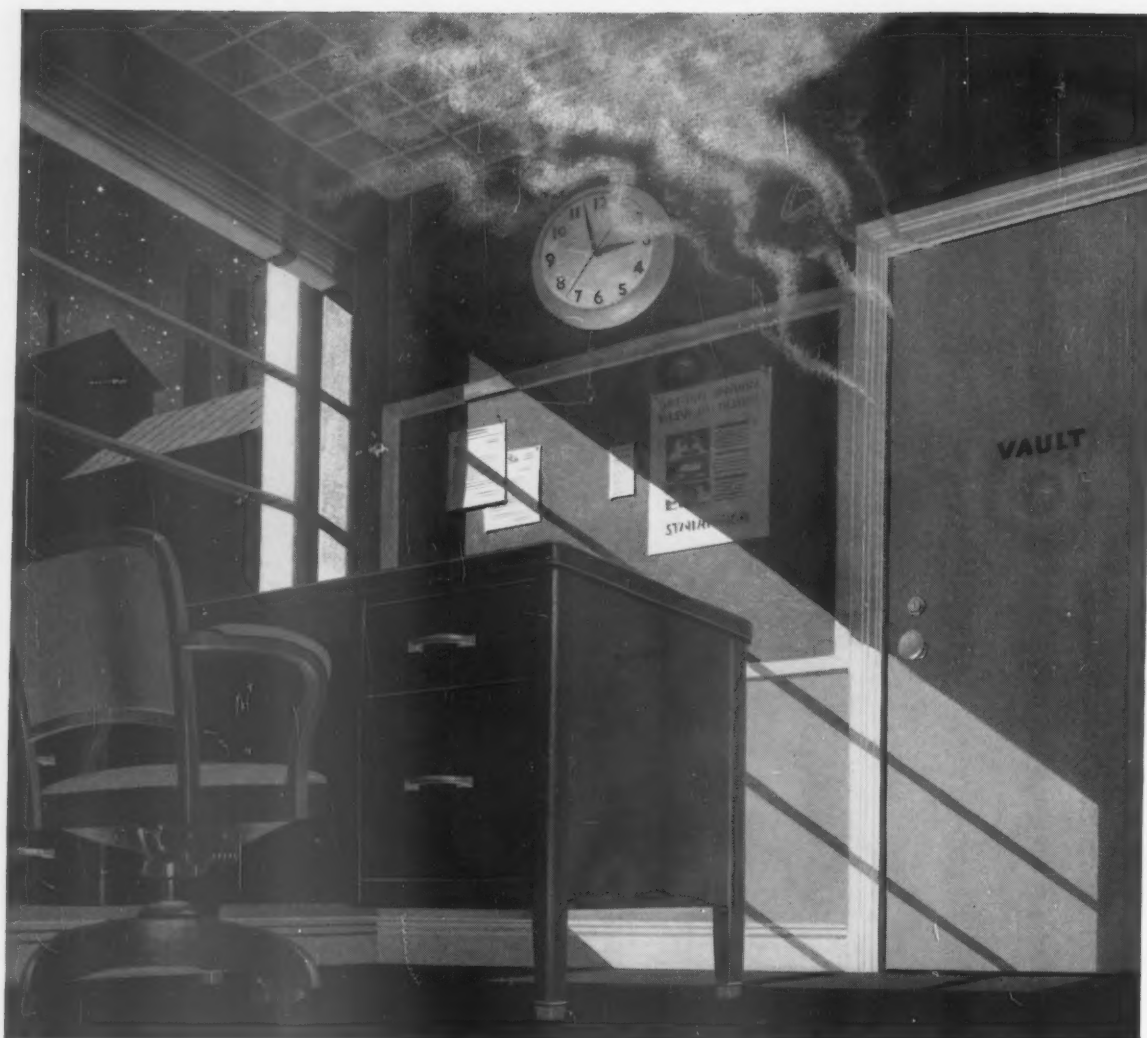
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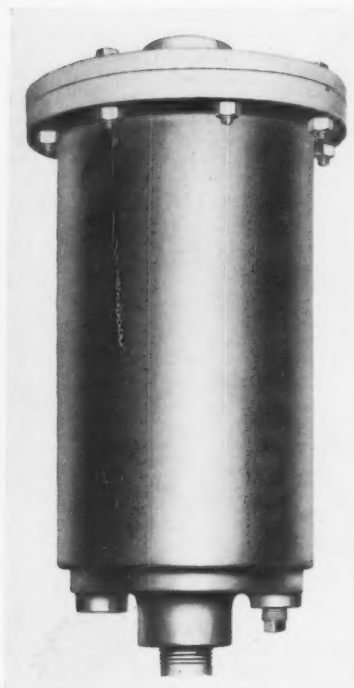


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Maintenance-Free Air Separator

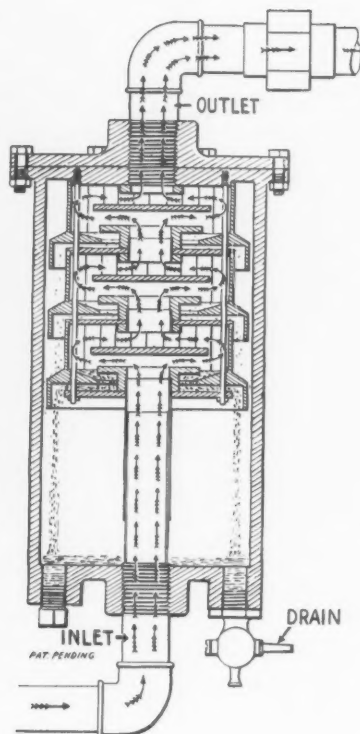
A new design of compressed air separator has been under test in yard air lines where it has effectively cleaned compressed air of water, oil, dirt, scale, cinders and other elements harmful to air-operated equipment.

A feature of this Textite Air Separator is an arrangement of cleaning elements which removes unwanted by-products of compressed air without using moving parts that wear, or filter elements which must be cleaned or replaced. Only the air stream moves throughout the unit. A combination of centrifugal action, jetting, sudden expansion, capillary attraction and scrubbing is said to remove the contaminants.

The air moves through a series of elements as illustrated. It enters each element at the center and flows outward through spiral vanes. It then makes a sharp reversal and passes upward to the center of the next element.

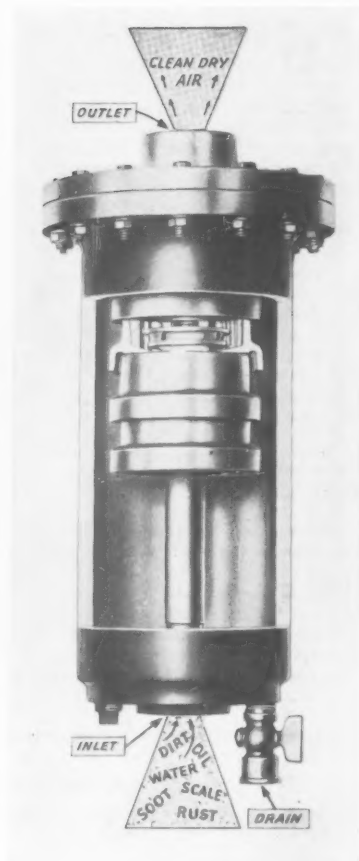
The water droplets removed from the air drop down along the inside of the casing for collection and removal. Thus no re-evaporation occurs because the air being cleaned does not contact water already removed.

Because there are no filtering materials, the manufacturer states no



maintenance or servicing is required other than draining the collection chamber. The separator can be used with pressures up to 150 lb. It should be installed some distance away from the compressor to minimize the effect of pulsations.

The separator removes only water in liquid form—not the vapor that makes up the humidity content. Therefore, it



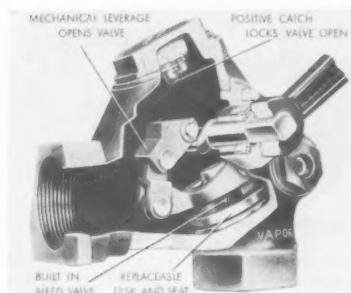
must be installed beyond the after-cooler, so that the temperature of the air passing through the separator will not be appreciably higher than the temperature of the air where it is used. Consequently any water that is to condense out will have done so and can be removed by the separator. Chicago Railway Equipment Company, Chicago •

Easy-Closing Steam End Valve

A steam end valve has been designed with an easy-opening feature for passenger cars and diesel locomotives to control high-pressure train-line steam.

A mechanical linkage inside the valve multiplies the lever pressure for opening against 250-lb steam pressure. The valve opens slowly at first, to crack it open, then increasingly faster to a full open position. The stem rotates approximately 103 deg from closed to full open.

A positive stainless steel spring-catch locks the valve in the open position so it does not vibrate closed during a



trip and shut off steam (picture). At the same time, the groove is of a small enough angle so moderate pressure on

More New Products

the handle can close the valve when this is desired.

The replaceable disc and the replaceable seat are made of stainless steel, with the former heat-treated. A bleed valve—also stainless steel—is built right into the disc. The bleed valve allows the small amount of steam to bleed out of the end of the last car in the train which is necessary for proper functioning of the steam heating system. A spring loaded packing on the stem automatically compensates for wear without adjustment.

There is also a kit of the interior parts of this new end valve that can be installed in older 2½-in. end valve bodies which is said to give the rebuilt valves the advantages of the new, easier-to-open valve. *Vapor Heating Corporation, 80 East Jackson st., Chicago 4* •

Tank Car Paint

Gloss-enamel finishes of the catalyzed-epoxy type can now be applied to the exterior of tank cars. This type of finish is said to be particularly suitable for cars handling alkaline materials. This manufacturer has previously produced special linings for tank car interiors. *Lithcote Corporation, 335 W. 40th place, Chicago* •



Lightweight Diesel Engine

A weight of 9.2 lb per horsepower has been achieved in this 175-hp turbocharged diesel engine. It is a six-cylinder, in-line type with 4½-in. bore, 5-in. stroke and a displacement of 401 cu in. The engine has a four-valve cylinder

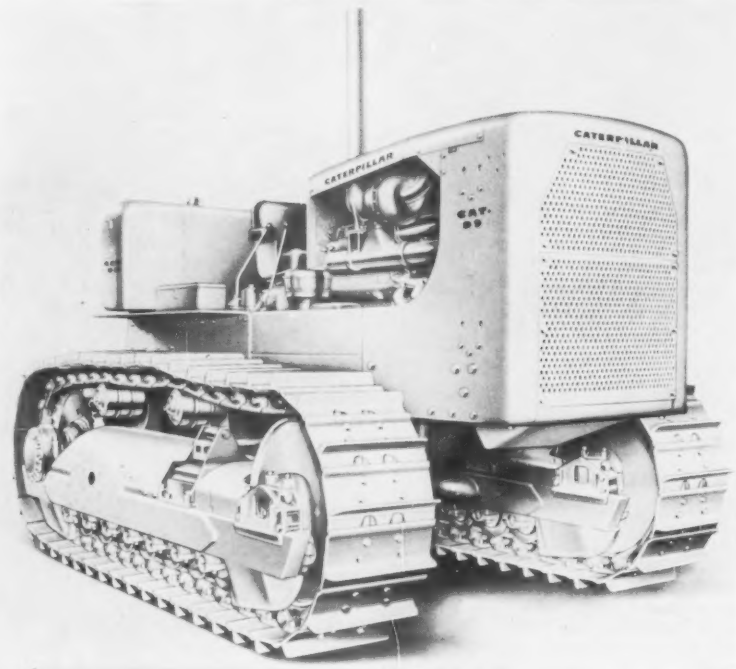
head design. The continuous-flow PT fuel system requires no timing adjustment. Metering of fuel is accomplished by pressure changes controlled by a pressure regulator, throttle and governor. Fuel is metered into the fuel injector cup and is pushed into the combustion chamber on the downstroke of the injector plunger.

Valves and injectors are actuated from the engine camshaft through push-tubes and rocker-lever linkages. Valve seats have stellite inserts, and exhaust valves have stellite facing. The crankshaft is fully counterbalanced and all journals are Tocco hardened. Copper-lead strip type bearings are used. The lubricating oil pump in the oil pan is driven from the engine gear train. Oil is pumped through a tubular type cooler and is delivered through pas-

sages in the block and crankshaft. The engine uses a 12-volt starting system. *Cummins Engine Company, Columbus, Ind.* •

Hand Cleaner

A liquid hand cleaner, Rid, is said to remove paint, grease, oil, grime, putty and other stubborn dirt from the hands quickly. It can be used either with or without water. Containing no abrasives or ammonia, this cleaner does contain lanolin and an antiseptic that is reported to remove germs from the skin surface. It is sold in self-dispensing cans of half-pint and pint-size. *Fern-Wey Company, 11705 Detroit ave., Cleveland 7* •



Turbocharged Tractor

A new crawler tractor powered with a turbocharged diesel engine and reported to develop 230 hp at the drawbar, is the sixth in the Caterpillar track-type line, known as the Caterpillar D9. Its 6-cylinder turbocharged diesel engine is said to deliver 286 hp at 1,200 rpm to both torque converter and direct drive models. It has a 2-cylinder gasoline starting engine equipped with a 6-volt electric starter. The engine, transmission, steering-clutch-release booster, and each final drive are equipped with pressure lubrication and full-flow filtration. Pressure lubrication is also provided for the oil clutch and starting engine.

The torque converter model has a three-stage 5-to-1 torque-multiplication unit which uses diesel fuel as the hy-

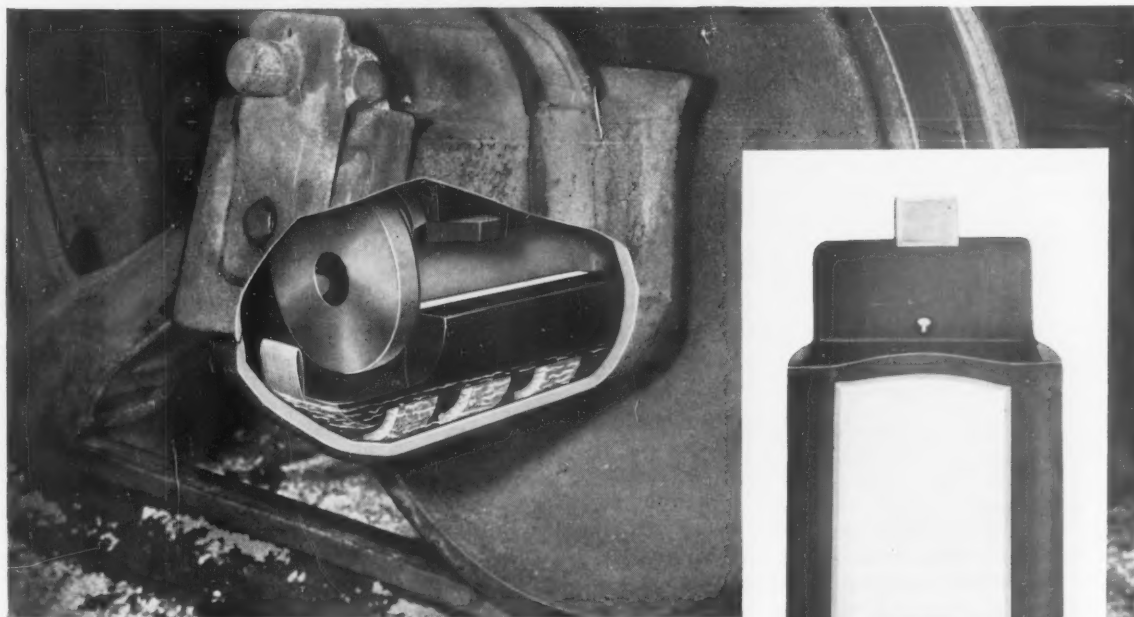
draulic fluid. Fluid cooling is provided with a water-type heat exchanger. A 19-in. single-plate dry-type flywheel clutch is also used. There are three forward speeds up to 7.8 mph and two reverse speeds on this model. The direct drive model has six forward and six reverse speeds.

All accessories are driven from a gear at the rear of the crankshaft which is said to reduce torsional vibration. A constant-power drive has been provided for rear-mounted equipment, such as cable controls.

This is said to provide power whether the flywheel clutch is engaged or the torque converter is operating at lowest speeds.

The conventional drive D9 weighs 56,200 lb and the torque converter model weighs 56,650 lb. *Caterpillar Tractor Company, Peoria, Ill.* •

MAJOR CAUSE OF HOT BOXES ELIMINATED!



Cut-away illustration shows the simplified design of U.S. EVER-PAC and the absence of metal parts. Oil is fed to the journal through the wick pad, which receives its supply by capillary action from integral wicks, pumping action, and from the oil-saturated synthetic sponge rubber pad.

U. S. EVER-PAC* solves difficult problem economically.

Here at last is the Journal Lubricator that meets the railroads' chief demand:

Makes "waste-grabs" and other failures of waste packing impossible!

Interchanges with present equipment!
(No shop modifications, machining or additional labor costs)

No costly special oil seals required!

Low-cost initial installation!

Low-cost upkeep!

Easy determination of oil level!

Trouble-free service!

71% of hot boxes are directly attributable to waste packing, mostly "waste-grabs." Ever-Pac makes "waste-grabs" impossible!

U. S. Ever-Pac has A.A.R. approval for application to a specified number of cars which move in general interchange service (Docket No. L-129).

Years of intensive research and testing show conclusively that with U. S. Ever-Pac, a product of United States Rubber Company, a major cause of hot boxes can now be eliminated.

EVER-PAC PROVIDES 3-WAY OIL DELIVERY UNDER ALL ROADBED CONDITIONS AND KINDS OF CAR HANDLING

(1) *Capillary action soaks up oil.* The wick is highly oil-absorbent. There is always a controlled rate of clean oil distribution—because the yielding sponge rubber, a specially developed synthetic compound, provides a cushioned upward contact.

(2) *Pumping Action.* Each vertical or lateral movement of the journal or journal box compresses the pad, thereby setting up a pumping action which pumps oil from the reservoir under the pad through holes to the distributing wick pad.

(3) *Sponge pad flexing.* Every movement of the journal or journal box flexes the yielding pad, making it "breathe" out even more oil—because the pad contains 2 pints of oil above and beyond the 2 pints in the oil reservoir.

EVER-PAC is easy to install. Simple in design, no metal or complicated parts to get out of order and cause damage. Over 7 years of research and testing prove the dependability and the *economy* of U. S. EVER-PAC. Write for free booklet that gives full details.

*Patented



"U.S." Research perfects it... "U.S." Production builds it... U.S. Industry depends on it

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Hose • Belting • Expansion Joints • Rubber-to-metal Products • Oil Field Specialties • Plastic Pipe and Fittings • Grinding Wheels • Packings • Tapes
Molded and Extruded Rubber and Plastic Products • Protective Linings and Coatings • Conductive Rubber • Adhesives • Roll Coverings • Mats and Matting

Originated by General American in 1944

**today,
more than
4000
GATX flued-dome
tank cars are
leased to industry**

Back in 1944, General American's research department completed development of a way to make tank cars easier to line, add structural strength, simplify cleaning, and minimize corrosion. This revolutionary development . . . the *flued-dome* tank car . . . was immediately accepted by railroads and shippers.

Now, eleven years later, U. S. railroads haul GATX *flued-dome* cars everywhere carrying products ranging from ammonium nitrate to hydrogen peroxide . . . from glucose to latex . . . from muriatic to sulfuric acid. The GATX *flued-dome* car was another of the many innovations pioneered by General American . . . leader in tank car design.



section showing flued-dome

**Another
rail shipping
success!**

The aluminum tank car is typical of the more than 4000 *flued-dome* cars in the GATX fleet. There are over 200 different types in the fleet . . . designed, built and operated by General American—all leased to industry without capital investment.

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A "Workshop" For Executives

"When man starts off on this earth he is a small machine—with much potential, but without any way of utilizing this machinery effectively. He can suck, make noise and maintain an internal equilibrium. Not much else. What is the process which enables man to use his own machinery to live? Learning. Everything we are able to do; everything that we feel; every attitude that we hold; every response we make to stimuli is learned."

This is what a successful manufacturing executive told the 4th annual "Utility Management Workshop" last month. The "workshop" comprises an intensive period of listening, study, discussion and group "task" accomplishment by some 30 to 36 operating utilities officers. The sessions are operated by the Department of Industrial and Management Engineering of Columbia University. Ranging from presidents to plant superintendents, the utilities officers "hole up" for 12 days in Columbia's Arden House, the mountain-top mansion built by the great railroader, Edward H. Harriman. Here, with the help of professional management-training technicians, they hammer out their own group conclusions to specific problems in the learning processes of business executives.

"As an engineer, I must know the properties of my resources. People are the biggest resource of the utilities business." It was with this conviction that R. T. Livingston, a utilities engineer and executive, started a search for a means by which practical operating men could utilize the findings of "the experts." He was not satisfied with conventional text books on sociology and psychology. "They don't deal with the kind of questions an engineer asks."

Now a member of Columbia's engineering faculty and founder and director of its "Utility Management Workshop," Professor Livingston believes the workshop method provides the best answers to the problem of adapting academic knowledge to the solution of practical management problems. He runs the sessions on the premise: "I have no answer; there is no single answer. Anybody who tries to sell a packaged bill of goods on executive development is intellectually dishonest."

Professor Livingston also directs his workshops on the principle that management training must be hard-boiled; it must not coddle anybody. "The job of the manager is to manage—and to get results." He believes further that "It is not the company's responsibility to develop the individual. That is the job of the individual. It is the company's responsibility to perpetuate management."

The method of the Arden House workshop is to assign most of the work to the students. It provides them with a large library of books and articles. Their deliberations are guided by trained discussion leaders. There is even provided a visual aids expert who helps them put their ideas in graphic form—on the spot.

A psychologist, a sociologist and a psychiatrist are brought in to tell, briefly, the things they know which ought to be useful to a manager. Speakers are brought in both from utilities and other industries to stimulate discussion. A workshop may include a personnel consultant whose *forte* is debunking the trappings of management. This gets the students "off-base and thinking." He may be followed by a practical operating officer who reassures them. A follow-up may be a professional speaker "to stir them up—or make them mad." All of these devices of learning, however, are subordinate to the work of the students, in small groups of eight to ten, in solving specific problems and competing with one another to come in with the best presentations of their solutions.

The president of a large utility company told one group that "in this whole area of utility management there is a driving need to emphasize management ability in executives, rather than technical know-how." He pointed out that, in contrast to industry as a whole (where most executives come up through sales), general management jobs and engineering provide most of the top utilities executives, and sales, the least. He further emphasized that, because of heavy government regulation of their activities, utilities "are influenced toward a minimizing of risk-taking." Accordingly, concluded this utility executive, "There must be an emphasis on men with strong initiative, to overcome the effect of these [industry] characteristics."

If this kind of workshop technique is proving valuable in the utilities field, why shouldn't it be equally valuable for railroad officers—either as a separate enterprise or by having railroad officers participate in utilities' sessions? Railroaders and utilities men have many problems in common. They have the same serious responsibility of choosing and training men to fill the vacancies which must constantly be filled in top management.



AAR GROUPS MEET: More than 1,000 railroaders from Canada, the U.S. and Mexico gathered in Montreal for the annual meeting of the AAR Mechanical Division and Electrical Section. From left to right: Fred Peronto, secretary, Mechanical Division; W. M. Keller, executive vice chairman, and director of research, Mechanical Division;

D. S. Neuhart, chairman, Mechanical Division; N. R. Crump, CPR president; R. G. May, vice president, Operations and Maintenance Department, AAR; R. I. Fort, chairman, Electrical Section; and C. E. Pond, vice chairman, Mechanical Division of the Association of American Railroads.

"Don't Take Progress for Granted"

N. R. Crump at Montreal AAR Mechanical and Electrical meetings stresses the unified and intensive effort that must, of necessity, be the forerunner of future accomplishment

A wise and a distinguished educator, in an address which I had the privilege of hearing a short time ago, said that no law exists making human progress inevitable; progress is not something to be taken for granted; rather it is something that we must work at and plan for, with foresight and wisdom."

Thus spoke N.R. Crump, president of the Canadian Pacific, in the opening address, Tuesday June 21, of the AAR Mechanical Division and Electrical Section. About 1,600 members and guests attended the three-day meeting at the Sheraton-Mt. Royal Hotel, Montreal.

Mr. Crump outlined the processes by which ideas are developed by the engineer and sold to someone who can raise the capital—someone who is comparable to railway management. Railway management has to compete with other users of capital, and the capitalist is guided in his choice by the return on the investment and the risk. In order to attract capital into private enterprise the prospects for profit in the enterprise must compare reasonably well with those of other industries in the capital market.

"This urge to find more productive ways of using capital," said Mr. Crump, "is the dynamo that keeps our system going and growing. That's what makes America tick. The search for profit and the avoidance of loss are the compelling forces and the disciplines to which all management in private enterprise is subjected."

By and large, he said, the railroads on this continent have not been earning an attractive return on investment as compared with other industries, and

reasons for this have been given prominent attention recently. There are grounds for hope, he observed, that policies may be adopted conducive to sound economic development of transportation on this continent.

Much of the present regulation of Canadian and U.S. railways is based on the assumption that they still have a monopoly. "Basically the problem is one of harmonizing regulation and competition," he continued. "Some degree of regulation may still be needed to assure regularity and dependability of common carrier service. Regulation, however, should be designed to encourage the flow of capital into the different forms of transportation in such a way as to produce the most economic combination of transportation plant and facilities.

"Traditionally the people of this continent have placed their main reliance upon competition and the market to direct the flow of capital into the most productive uses. The railways are simply asking for equality of opportunity and equality of responsibility under regulated competition in the transportation industry. The emphasis is upon greater freedom with less restraint upon the natural economic forces of supply and demand."

The Goal Is Still Ahead

"Everyone here serving on committees has his own responsibility with a railroad," said R. G. May, vice-president, operations and maintenance department, AAR, in his address at the opening session. "He not only finds the time to serve his own company but the industry as well. In most cases this participation in committee

being away from home and job. Yet the time and service are given willingly and without thought of personal gain. It is this spirit which provides the answer to how North Americans have developed a rail transportation system capable of moving more goods and more people at less cost than any other system anywhere."

He said that railroad men can look back with satisfaction on the progress that has been made since the end of World War II in motive power, freight and passenger cars, signals and communications, and yard and terminal facilities. To meet the increasing prices of materials, wage costs and taxes, along with competition, these improvements were absolute necessities. There can be no let-up in efforts to develop increased efficiency, improved service and safety, he said, in order to meet the continuing demands of the present and future.

Providing good service is made additionally difficult he said, by the fact that many commodities considered rough freight only a few years ago are today rated as fragile or practically perishable. Tin plate, for instance, was formerly sprayed with oil to prevent rust and shipped in an ordinary box car. Now it requires an insulated box car to prevent rust particles forming from condensation, he said. Stoves and refrigerators which use ceramics in their construction, canned goods and many other commodities require special packaging and special handling by special equipment.

"We cannot accept the progress already made as anything approaching a goal," Mr. May continued. "There is still much to be learned, for instance, about the diesel locomotive. It is inevitable that with the development of an atomic submarine, the request for an atomic-powered surface vessel and related events, that studies will be accelerated to develop possibilities for the use of atomic energy in railroad locomotives. . . .

"The close working arrangement with the Electrical Section has solved many of the problems arising in connection with additional improvements in the electrical and electronics field for the mechanical officer. In the future we can expect great strides in the field of electronics—and a still larger role for our electrical specialists. We can envision microwave for the remote control of switches, closed-circuit television enabling completely automatic recording of cars, radar control of car coupling speeds, instantly produced graphs showing load shifts in cars, and possibly an entirely new development in the field of refrigerants. . . .

"It is clear that the association's research program, the individual railroads conducting their own research, and the supply industry always striving to produce a better part or unit as a service to the railroad industry—all together form a great combination in railroad research and development work," Mr. May continued.

Don't Become Self Centered

In his opening remarks, D. S. Neuhart, chairman of the AAR Mechanical Division and head of the UP's mechanical department, pointed out that the AAR becomes qualified to carry out its original objectives of promoting both the public interest and the general good of the railroads only to the extent that its constituents make it qualified. Too many members become so engrossed in their own responsibilities that they con-

NEW MEMBERS OF GENERAL COMMITTEE

At the annual meeting at Montreal the following members of the Mechanical Division General Committee were elected to serve until June 1957: B. M. Brown, general superintendent motive power, Southern Pacific; H. T. Cover, assistant vice-president and chief of motive power, Pennsylvania; J. L. Robson, chief mechanical officer, Great Northern; A. C. Melanson, chief of motive power and car equipment, Canadian National; J. W. Hawthorne, general superintendent motive power, Atlantic Coast Line; and J. A. Welsh, general superintendent motive power, Illinois Central.

Officers of the Mechanical Division continue to serve for another year.

tribute all too little toward making the association adequately qualified. Yet in no other industry is unity of purpose so clearly defined and concerted action so vital.

The very nature of the railroad business demands collaboration. "It requires," continued Mr. Neuhart, "that we join ranks as one to improve our service and economic status as a whole. That is the function of the AAR. So, too, is ferreting out causes of poor performance; bringing about corrective measures without delay—and throwing off the cloak of tradition where it slows progress."

At the conclusion of the opening ceremonies the Mechanical Division proceeded to consider the matter of the 17 reports which made up its 1955 program. Abstracts of these reports and the high spots of the discussion after their presentation are on page 27.

"A More Aggressive Attitude"

A program for railroad men was set forth in a luncheon address by S. F. Dingle, operating vice-president of the Canadian National. To build for the future, he advised railroad men—

"To shrink where we should shrink . . . to grow where we should grow . . . to exploit our special advantages as our competitors do . . . to be free as prudent businessmen to change the pattern or character of service, or in extreme cases to substitute alternative transport services and close down rail operations . . . to take a more aggressive attitude toward competitors . . . and to perform the extra duty that each of us has as a citizen and a railroad man to educate the public in the railroads' case."

Mr. Dingle called attention to the fact that though Canada has more miles of railroad per capita than any country in the world, truckers get a quarter of the freight revenue for hauling 10% of the traffic.

He also emphasized that the CNR does not represent a socialist experiment. It was built primarily to develop the country. Its main difference from private roads is that the Canadian people as a whole are the stockholders. It, and the Canadian Pacific, are operated in a framework of competitive equality, with both equally subjected to regulations of a government board.

RR's Can Make Their Own Future

. . . SAYS ICC COMMISSIONER CLARKE

The industry must improve the quality and dependability of service and deliver the goods when promised—When shippers abandon the railroads it's usually because of failure to do this

It is all right to unite and seek legislative relief to enable the railroads better to keep pace with the changes in transportation, but, there are other remedial steps which are far more important, said Interstate Commerce Commissioner Owen Clarke in an address at Montreal, June 22, during the AAR Mechanical Division annual meeting.

First, and most important of all, he said, is the need to cultivate what he termed the "competitive instinct." Railroad transportation, he declared, is now living in "a ferociously competitive environment." Other industries prosper in this competitive atmosphere "because they have revised their actions to conform to the realities which surround them. The railroads must do the same.

"Above everything else, it is up to the leaders of the industry to improve upon the *quality* of the transportation service they sell. . . . Modern industry and commerce are carried on with split-second timing. Assembly-line methods and the maintenance of low inventories require that transportation be geared to constant and continuous production. Sentiment, past performance, friendship and excuses are of no avail if the goods are not delivered on time—regularly. Studies indicate that three-fourths of the shippers who abandon the railroads do so because of failure in this respect. Railroad transportation must meet this requirement of the customer if it expects to hold his patronage."

Time of delivery, both on the road and in terminals, must be speeded up, too, said Mr. Clarke. "Terminal delay is a wasting disease that gnaws at the vitality of most railroads. Cars are hurried over the road and then buried in yards for days on end. The obvious solution is to keep cars out of yards as much as possible and to make yards more modern, flexible and adequate, as has been done in many locations. . . .

"*Quantity* of service is important too. Without an adequate supply of freight cars of every type to meet the demands of shippers of every kind of commodity, the railroads are assisting competing forms of transportation to build up their growing share of the total volume of traffic offered for movement."

The speaker showed that the railroads are now in "a car shortage of serious proportions. Just a year and a half ago the available supply of serviceable freight cars was 1,688,650. On May 15, 1955, this figure had been reduced to 1,608,970, a loss of 79,680 cars in

18 months. Fewer new freight cars were installed in 1954 than in any year since 1939. Retirements, on the other hand, reached an all-time high. Unless the railroads are to surrender to competing forms of transportation, ordering of new cars, at least consistent with retirements of old ones, is absolutely imperative. . . .

"To further complicate the present picture is the unusually high percentage of cars being held out of service waiting repairs. On May 1, 1955, bad-order freight cars were reported at 113,543. . . . As a corollary to this problem, reports from ICC field inspectors indicate that the percentage of cars found with defective safety appliances and the number of violations of the safety appliance law are increasing. Many more cars are found in trains with cut-out or inoperative brakes, and the large number found with excessive piston travel indicates a definite need for corrective action."

ICC "Deeply Concerned"

The ICC is "deeply concerned" about the long-range effect of car shortages, Mr. Clarke declared. "There is no question that failure to furnish freight equipment when it is needed causes the diversion of traffic from the rails, a portion of which will never be recovered."

As another reason why railroad management should be greatly concerned about the present car shortage, the commissioner predicted that railroad spokesmen will encounter "considerable difficulty" convincing congressmen they should support legislation to permit railroads to compete for a greater share of the total traffic when his shipper constituents are telling him the railroads can't handle the business being offered now.

"In addition to more and better rolling stock, there is an urgent need for extensive road and yard improvements, better signal systems, more centralized traffic control, and expanded shop facilities. These and many other capital improvements have become a necessity if a strong and improving railroad system is to be maintained for the nation's commerce and defense," said Mr. Clarke.

"The time has come for management to give greater freedom to creative ideas in a stepped-up program of research.

"To succeed, such a program must be backed up with real courage to throw out the old in favor of the

"Unless the railroads are to surrender to competing forms of transportation, ordering of new cars, at least consistent with retirements of old ones, is absolutely imperative."

"Greater and more general optimism about the future of the railroads not only is justified by the realities of the situation, but actually is required."

new. As a direct result of research, today railroads are inspecting rail joints supersonically and detecting fuel oil leaks with ultraviolet rays. They are checking castings with radioactive cobalt and talking from engine cab to caboose via two-way radio. Of course, the classic example of the revolutionary effect of technological development is the diesel-electric locomotive. Future prospects in the field of railroad research stagger the imagination. . . .

"Railroad planning must be lengthened in range. While there is always need for the short-term view, it is no longer sufficient in itself. Short-term considerations of management must be part of a longer-range plan—a plan for a decade or for a generation. Certainly those in the railroad industry who planned for long-range growth

ten years ago have since profited by that planning. . . .

"Our inescapable and underlying reason for optimism is our population increase. We in America each month have been adding 225,000 to our number. By 1975, now just twenty years into the future, it is anticipated that we will have 55 million more people to feed and to house and to clothe.

"With growth of such explosive rapidity and prospects for a continuing high level of economic prosperity, there should be no room for pessimism. So long as railroad leaders have faith in the future of America and are willing to plan accordingly, there can be no doubt that rail transportation will maintain its place of commanding importance in our national economy and our arsenal of defense."

REPORTS OF MECHANICAL DIVISION COMMITTEES

Revised Interchange Rules

Two of the more important recommendations this year by the Arbitration Committee concern air brakes. One would require that renewal of bushings in triple valve, control valve or AB valve operating portions be done only by the air brake manufacturers. The second would prevent the application of used air brake equipment having obsolete parts.

The added expense due to paid holidays and health and welfare benefits recently awarded to operating employees was taken into account by increasing the charges covered in Rule 1 by 2% for the paid holidays and 1% for the other benefits.

A uniform width of deck for flat cars built new was recommended to provide for the adoption of standards for shipments on flat cars of bundled, packaged and boxed material of uniform widths.

The committee felt that a Class A car temporarily in bad order condition because it requires minor body repairs should be considered a bad order Class A car, and not receive a lower classification.

An outlet for AAR X-2 and AAR X-3 experimental cast-steel wheels removed in good condition and credited to the car owner was recommended, on the same basis as one-wear wheels—also a provision for disposition or credits for new design AAR X-4 experimental cast-steel wheels.

Two passenger car rules were recommended for change—one to provide for the use of the improved and strengthened "MT" type coupler in place of Pitt type couplers; the other to make the handling line responsible for missing metallic steam heat connectors as well as other parts of the steam and air lines.

Lubrication at 3-Year Intervals

Under study are the increased use of grease for roller-bearing lubrication and changes in seal types that have intensified the problem of leakage through the rear grease seal. Relubrication on a three-year basis has been approved for the grease-lubricated cars of a member road after test, and others are seeking such approval. The Committee on Lubrication of Cars and Locomotives added one new grease to the approved list, reported successful road tests for four others, and is preparing to test five more.

Three journal box lids submitted for approval during

the year failed to meet specifications. Redesign of a fourth was tested and improved performance is reported. Members continued to make reports of journals damaged by spring type packing retainers. A recommendation was made to the Arbitration Committee that approval be withdrawn from six such devices, and that their mandatory removal be ordered. There have been no reports of damage by the modified spring type retainer. One "long" type spring packing retainer was approved, and a second retaining device was approved for limited interchange service.

Lubrication research has been facilitated by three new test machines installed at the mechanical laboratory during the year. The committee received an Armour report on the hot box problem, and laboratory reports on eight journal lubricators, on new waste saturation, and on a waste grab prevention device. The Armour report and another covering road tests of journal lubricators were submitted to members. Changes in the specifications for new and renovated journal box oils have been recommended. The viscosity of the oil would be changed from 80 to 100 to provide a lighter oil at low temperatures and a heavier oil at high temperatures.

The RS journal stop and packing retainer on a number of roads has been reported to be doing a good job. Satisfactory service on a Frisco car is reported in detail. Tests of a dust deflector housing indicate that the device has undesirable characteristics. Changes in the Lubrication Manual are planned to show how to handle the many recently developed journal lubricators, ventilated journal bearings, the flat bearing and wedge, and the RS journal stop. A preliminary draft of the manual section covering 12 journal lubricators is included in the report.

Wide Range of Discussion

Displacement of the waste-packed box either by roller bearings or by a substitute packing was predicted in the lubrication discussion. It was pointed out that the 1953 report mentioned only seven devices to take the place of waste whereas the 1955 report contains sixteen (14 illustrated, including the Plypack which is designed to overcome the disadvantages of waste), and five more are under laboratory test. Hope was expressed that by 1956 restrictions on the use of some of these devices will be removed so their operation in general service can be judged.

An accelerated test on the C&O was described in which two cars heavily loaded with sand were run daily on a mani-



Highlights of Reports and Discussion:

PREDICTION

- The waste-packed journal box will eventually be replaced by roller bearings or substitute packing.

RECOMMENDATIONS

- Controlled-slack coupler proposed AAR alternate standard for Types H and F Tightlock couplers.
- Revision of specifications for refrigerator cars.
- Vertical hand brake wheel design to be standardized.
- Deck widths for new flat cars to be uniform.

DECISION

- ASTM, SAE and other industry-wide material specifications will be used as AAR standard whenever practical.

test train to check a number of different types of lubricators and bearings, the amounts and types of oil and waste to be used, and the effect of sealing the journal box. (Results of this test will be described in *Railway Locomotives & Cars*). It was pointed out that because the train was speeded up during the second phase of the test it was necessary to modernize the truck in the interests of safety with the high speeds and heavy rail load. The question was raised whether railroads could continue to run old-style trucks at today's speeds and loads.

Another C&O contribution was the results found with an axle-test device, which showed that one out of every 777 cars (mostly old cars) had a defective axle.

The B&O reported that it holds trains an extra 10 or 15 minutes if necessary to complete work and feels that this time is saved several times over in the reduction of road delays. It was also recommended that new bearings be applied to boxes with a 36-month repack date as it was not believed that a bearing could be counted on to go 54 to 72 months in high-speed service. Another proposal was that specifications for roller bearing greases should include a requirement for emulsification to take care of condensation in cold weather.

Texaco reported that little research was done by refiners to improve car oils for the 20 years preceding 1949 because of rigid AAR specifications, the lack of need for additive oils and the low selling price. Research and testing have since been instituted to meet today's conditions, and these have shown that (1) no journal box oil can be a panacea for hot boxes; (2) premium oil helps but good maintenance is necessary too; and (3) oil quality will pay for itself.

The discussion also included a list of required characteristics for pad-type lubricators as seen by Miller. It was also pointed out that there are about the same number of cars in service with lubricators as with roller bearings so that the economics of the two types of equipment can be evaluated.

To Standardize Hand-Brake Wheels

The engineering committee of the geared hand brake manufacturers has agreed to design a standard brake wheel

to fit all makes of vertical wheel hand brakes made after a selected date. The use of this wheel would reduce large inventories of many designs of wheels, permit use of same wheel on all new designed brakes and do away with many conflicting directions that appear on some wheels when used on brake units other than those for which they were manufactured.

The 34 types of geared hand brakes to which AAR certificates of approval have been issued have been divided into two classes, active (29 brakes) and discontinued (5 brakes).

A question was raised in floor discussion concerning a revision calling for a 21 9/16-in. chain length because no tolerance limits were indicated, but no change was made in the language as it was considered primarily a locating dimension.

Tank Car Rules Rewritten

The complete set of specifications for tank cars has been rewritten to incorporate all changes made since 1941. The Tank Car committee reports that the revised edition will be in loose-leaf form to simplify keeping it current with each individual specification complete in itself.

Open-Top Loading Rules

The supplement to Department of Defense Pamphlet MD-7, issued May 15, 1955, includes 12 new loading methods for boats, landing crafts, semitrailers, rocket launchers, tractors, truck bodies and material handling equipment cranes, fork lifts and tractors.

Requests have been brought to the attention of the committee which the shippers insist must be met if the rail carriers expect to retain the present volume of business. The principal proposals are:

1. The necessity of furnishing equipment in clean and good physical condition to enable the shipper to properly and safely secure his commodity for rail shipment.
2. The necessity of providing adequately equipped flat

cars to permit shippers to secure loads with a minimum amount of securement and blocking.

3. The possibility of furnishing bulkhead type flat cars to prevent delays resulting from shifted loads and toward the more economical preparation of shipments.

4. The need of furnishing equipment which will provide a loading method more comparable to that followed on shipments using other forms of transportation.

5. The necessity of immediately and very materially reducing the damage occurring on shipments due to improper handling in transit.

The report presents detail changes in the open-top loading rules, based on inspections and experimental shipments, which have been approved in joint conference with the shippers and are expected to be issued soon in a Supplement to the MD publications.

As in the two loading-rule reports, the importance of meeting the desires of shippers as to types of equipment and methods of loading flat and open-top cars was the dominant note in the discussion.

According to one car department officer, loading rules are increasing in importance because the economic value to shipper and consignee of mechanical handling of lading on and off cars is increasing the amount of freight which is being loaded on open-top cars. Another aspect of railway traffic which will require adaptation of the loading rules is the growth of the piggyback movement. This has already begun to move in interchange. One officer foresees the need for rules for securing trailers on flat cars and for securing the contents in the trailers.

Lumber Loading Improves

Changes in pole and lumber loading methods, included in a supplement to Pamphlet MD-3 issued last year, mainly covered confining the overhangs to a single end of the pile, leaving one end square, and the location of piles not over 6 in. apart. These changes have materially decreased the number of loads requiring adjustment en route. Consignees and consignors are better satisfied because of the vastly improved transportation time of lumber shipments, both packaged and otherwise.

Experience with experimental loads using $\frac{3}{4}$ -in. by .035-in. high-tension bands for top-unit ties on lumber shipments have led the committee to approve their use in place of the $1\frac{1}{4}$ -in. by .035-in. bands now specified in the various drawings of loading methods.

Approval of the request of shippers that the loading of 8-ft lengths of packaged lumber be permitted (now restricted to a minimum of 10 ft) is expected to increase lumber shipments by rail.

A method of utilizing all side-by-side packages in a pile has been worked out to control the end shift of packaged lumber moving on conventional flat cars. It is meeting with success beyond all expectations. The method utilizes two additional interlacing ties per pile. These are passed through the top half of the bottom or intermediate tier and through the bottom half of the top tier. They tie all packages, both vertically and horizontally, into a single unit. A photograph of such a car on arrival at Chicago from South Fork, Colo., shows the lading in the same condition and same location on the car as when loaded.

The committee also describes a new method of loading lumber on flat cars with permanent end bulkheads. No full-length stakes are used, but 3-ft stub stakes are applied in all stake pockets as a safety measure. All packages in the lower tier are tied together, as are all in the top tier. All packages are then tied into a single unit with overall and interlacing ties. The packages are protected from the elements with sheets of polyethylene plastic applied on top of each bundle when it is packaged at the mill. Since September 1954 over 50 such shipments have been made from Goodwater, Ala., to points in Illinois and Michigan without a single car being shopped en route.

The committee makes a strong plea for the use of flat cars with permanent end bulkheads for the shipment of lumber. It recommends bulkheads extending 8 ft 6 in. above

the floor, with 43 ft 3 in. clear length, wood floors 9 ft 4 in. wide, and stake pockets. Such a car, the committee says, will accommodate 95 per cent of the commodities moving on flat cars. The new method of loading, using the bulkhead cars, can reduce the cost of loading and unloading for the benefit of shippers and consignees as much as 75 per cent. To the railways it offers the opportunity to build up lumber traffic.

Performance of Turbine Locomotives

This year's report on locomotives, outside of a progress report on both steam- and gas-turbine developments, dealt largely with brake equipment for diesels, flange lubrication, and jack-knifing of diesels in multiple-unit operation.

The report showed that the Union Pacific now has 25 gas turbine-electric locomotives operating in pool service west from Green River, Wyo., to Ogden, Utah, (175 miles) and east from Green River to Cheyenne (307 miles). During 1954 these locomotives hauled 6,204,959 thousand gross ton-miles with train-miles totaling 1,817,059. One unit has accumulated 306,472 miles. The first 10 units in service, in 1952 and 1953, accumulated 2,187,976 locomotive-miles. The availability of all is about 80%.

The N&W No. 2300 steam turbine-electric has undergone tests since July 1954 that have demonstrated its ability to handle tonnages equal to or greater than the N&W Y6b or Class A Mallets with fuel savings up to 30%. No difficulties attributable to the basic design of the locomotive have been experienced to date. Electrical maintenance is comparable to the diesel-electric. To March 1, 1955, the No. 2300 had accumulated 28,000 miles of service.

The coal-fired gas-turbine unit of the Locomotive Development Committee, up to March 30 this year, had accumulated 388 hours of operation, not counting the 1954 tests. The average load during these tests was 3,300 hp with a coal rate of 0.96 lb/hp-hr.

Continuous runs of 53 hr have been made without trouble with the ash separation system.

The general opinion of the committee, with respect to flange lubricators and track oilers, was that longer wheel and track life may be expected with the use of lubricators but that each railroad must determine for itself how important flange wear really is and then decide on an economic basis what measures are justified. One advantage, however, in m-u operation of diesels is the indirect effect of reducing flange wear due to jack-knifing.

The report sets forth some of the problems encountered in connection with jack-knifing. It sums up results of tests with one builder's locomotives and concludes that some of the difficulty may be reduced by use of the Type F coupler and certain types of draft gear. In the limited discussion of the report one member mentioned the desirability of providing lubrication for the center plates.

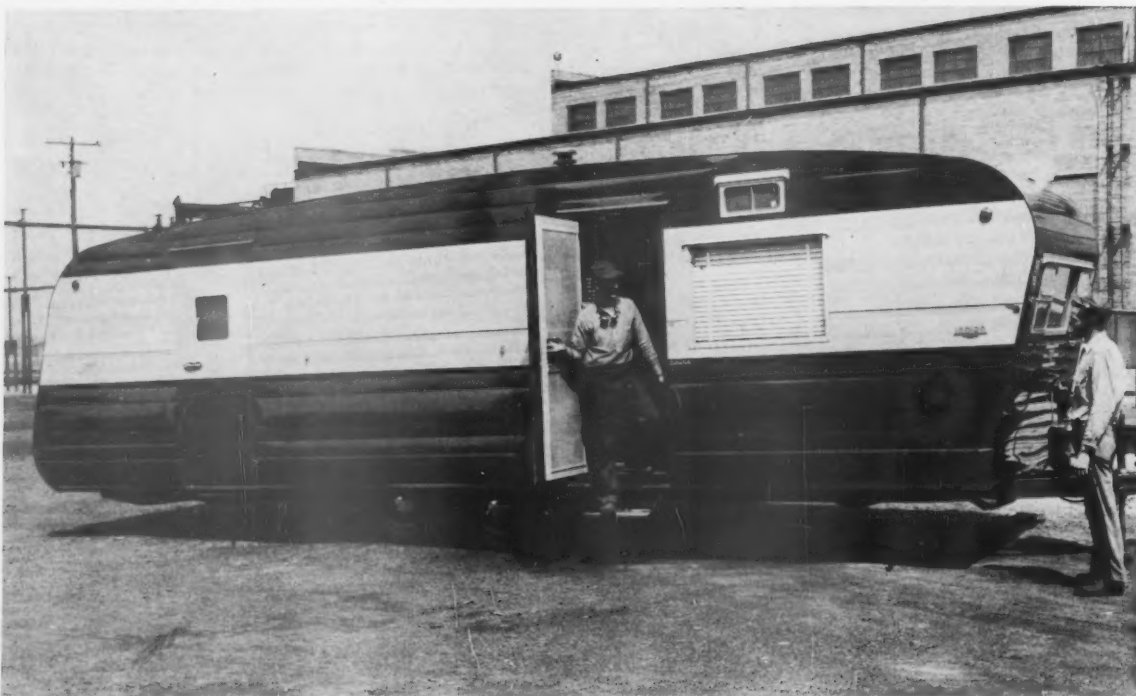
Alternate Coupler Recommended

Following tests, and with slight design changes, the Committee on Couplers and Draft Gears has recommended the controlled-slack coupler as an AAR alternate standard for Types H and F Tightlock couplers on passenger cars. The Arbitration Committee was informed that action should be taken to remove the Pitt coupler from interchange service because of design weakness. Without changes in the car, a newer MT coupler can be substituted for the Pitt type, and approval was given to the redesigned MT only for this substitution. Reclamation of coupler yokes by welding, and of coupler heads and knuckles by bushing were not approved by the committee when requests to do this were made by member roads.

Surveys among members showed that there had been few failures in the type E swivel shank coupler although there were reports that it is not standing up as it should. A member suggested magnafluxing of all new couplers as an addition to the specification requirement of visual

(Continued on page 39)

There are two general types . . .



FOR SMALL CREWS: Trailers of the self-contained type are considered ideal for serving the needs of outfits con-

sisting of 1 to 4 or 5 men. Such trailers have all facilities of a complete home.

ROAD TO NEW ECONOMIES . . .

Trailer Housing for M/W Gangs

Mobile, off-track living accommodations for floating crews are replacing conventional on-track bunk cars on many roads

If my company would give me authority to buy 100 of them, we could dump all of them in the river after two years—and still be ahead." The speaker was an engineering officer of a large road, and he was discussing mobile, off-track housing units—commonly known as house trailers. He was expressing his conviction that their use for bridge and building gangs on his road would result in savings sufficient to pay for the trailers in less than two years.

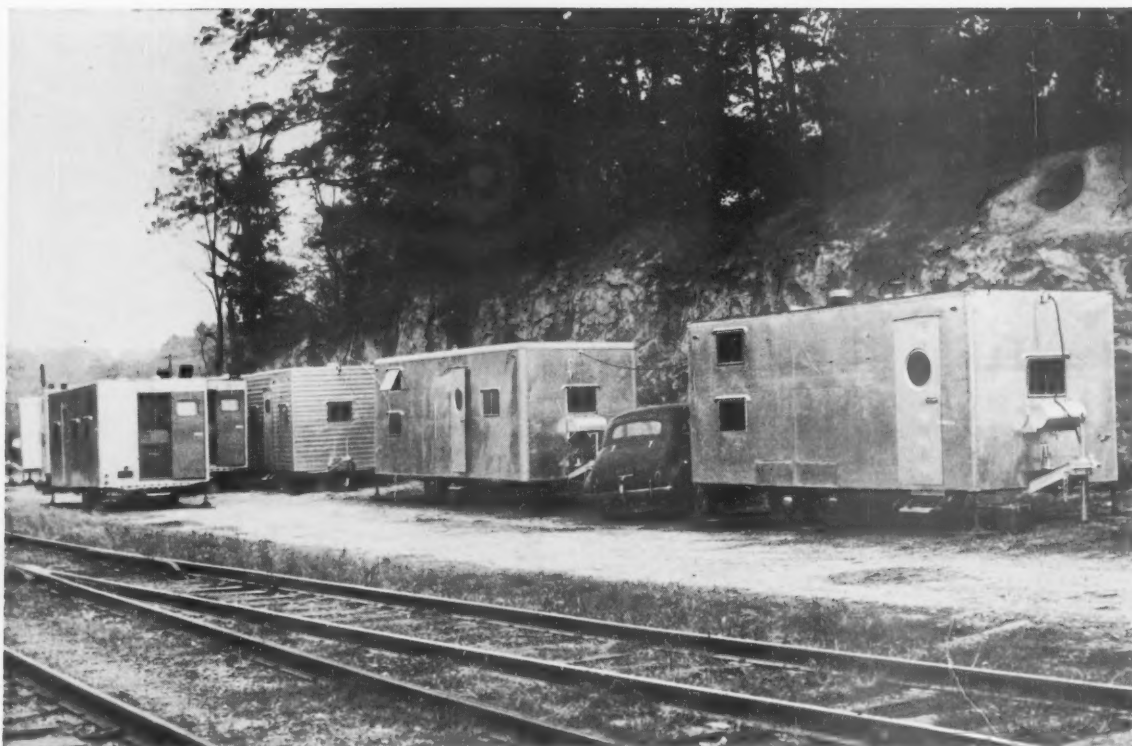
These estimated savings would be realized because, with the gangs housed in the trailers instead of bunk cars, the living quarters could be spotted much closer to the job, thereby reducing travel time and correspondingly increasing productive time.

Railroads everywhere are eyeing with increasing interest the possibilities for the use of highway trailers for housing maintenance of way and structures crews when they are away from headquarters. Until recently, the usual practice has been to accommodate these gangs in on-track bunk cars which are spotted on sidings as close

as possible to the work. When it becomes necessary to shift the gang from one location to another, or when the work has progressed beyond an economical travel range, the bunk cars are switched into a revenue freight train, or a special movement is arranged for them.

In recent years maintenance-of-way departments everywhere have been adopting highway vehicles to an increasing extent for transporting men, materials and equipment to and from the job. In this way these movements become independent of the track, eliminating delays due to waiting for trains.

Increasing wages and other expenses have made it necessary for maintenance officers to explore every possible means of reducing unproductive costs, such as the time consumed by gangs in getting to and from the job. That the house trailer should come in for consideration was logical. Many railroads are now using them, mostly on a limited scale. Such use, however, is increasing and at least one large road has gone "all out" with a program to "trailerize" practically all of its floating forces. Officers



FOR LARGER GANGS: Special-purpose trailers are being used for crews of 6 or more men. Functions of cooking,

dining and sleeping are divided between different trailers. Picture was taken on the Southern.

of railroads using trailers state that they are satisfied with the results. Many have placed repeat orders for trailers.

The advantages attributed to mobile, off-track housing for employees practically all stem from the fact that such housing is independent of the tracks. These advantages may be divided into two categories:

1. Those related to the fact that house trailers can be shifted from one location to another independently of the rails, and;

2. Those based on the fact that spotting of trailers is completely independent of the availability of side tracks, making it possible in most cases to place them closer to the work than is generally possible with bunk cars.

When Bunk Cars Are Used

The significance of these attributes of trailer housing can best be understood in terms of the costs and other problems arising when bunk cars are used. First, of course, there is an expense when these cars are moved from one point to another. Second, when such movements are dependent on train service they have a degree of inflexibility, which in various ways can result in higher costs for the maintenance-of-way department. When delays are encountered in the movement of bunk cars the railroad must incur additional expense for feeding and housing the men. Also, where track and bridge work is carefully programmed in advance, delays in the movement of gangs can result in the work getting behind schedule.

Railroad officers point out that extensive dieselization

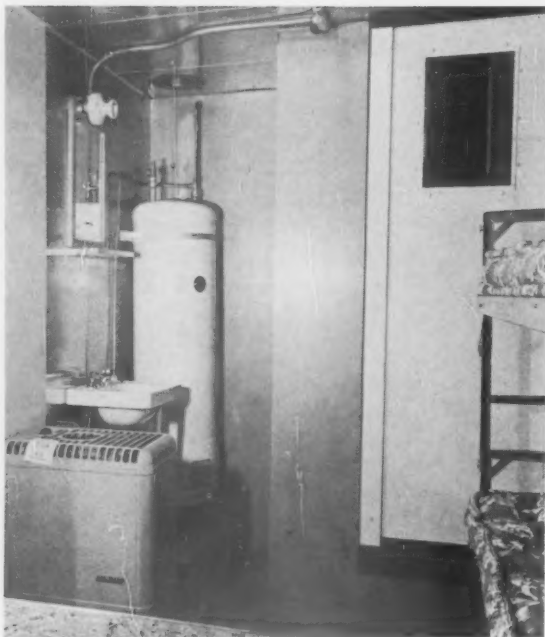
of motive power has aggravated the disadvantages of bunk cars. Trains are longer and fewer, and on some railroads local freight service has been curtailed because of business conditions and other factors. One result is that even greater delays are encountered in moving bunk cars.

But this isn't the only consideration arising from these changes in operating conditions. Bunk cars are not always kept up to the same standards of maintenance as revenue equipment. If a string of such cars is switched onto the head end of a long freight train there is a likelihood of a drawbar being pulled, resulting in delays to both the bunk cars and the revenue train.

Another complication is introduced by the fact that so much switching these days is done in modern hump yards. Since it is not considered practical to handle bunk cars through hump yards complications arise in getting them through terminals. All of these considerations add up to delays and excessive costs in getting bunk cars from one point to another.

The fact that the spotting of bunk cars is dependent on the availability of sidings is another source of unproductive expense. Not infrequently the closest available siding may be 15, 20 or even more miles from the work site. And on some railroads this situation has been aggravated by taking up side tracks not needed for revenue purposes. Since the movement of gangs from camps to work sites and back again is on company time, it is apparent that the unproductive expense is proportionate to the distance it is necessary to travel.

With work gangs housed in highway trailers an entirely different picture is presented. They can be moved



DORMITORY trailer will accommodate six men. Unit also has space heater, hot-water heater, shower, lavatories and lockers.

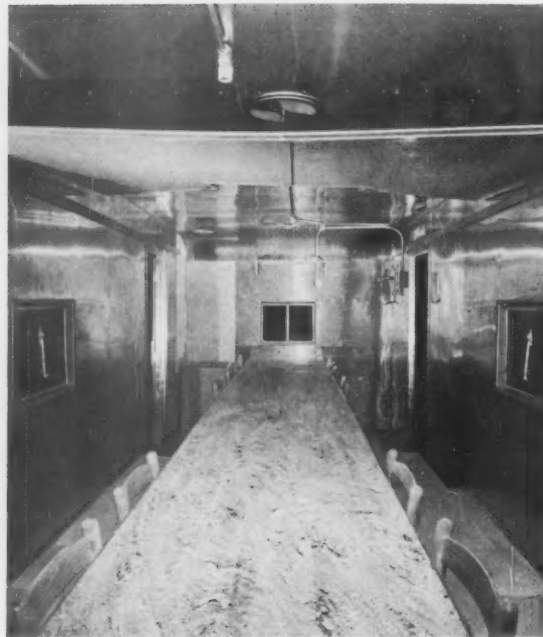
any time this becomes desirable, and almost at a moment's notice. Usually the gangs to which the trailers are assigned are already provided with highway trucks which can serve as hauling units. One railroad that is making extensive use of house trailers has equipped all of its trucks with towing hitches so that any of them can be drafted for moving the trailers if this becomes advisable.

It cannot be overlooked that nearly all M/W floating gangs carry with them supplies, tools and equipment which also must be moved when the work site is shifted. However, with most types of the smaller gangs, the trucks regularly assigned to the crews, and which are used to haul the trailers, are generally sufficient to carry all necessary supplies, equipment and tools.

On the other hand, if the quantity of supplies and equipment is more than can conveniently be transported on trucks it is not uncommon for trailer-equipped gangs to continue the use of tool and material cars for this purpose. This is particularly the case with outfits having heavy equipment to transport, such as bulldozers and other types of grading machines. With some gangs, however, the personnel and the trailer, along with sufficient supplies to last for a few days, can proceed to the new location, leaving the tool and material car to be moved as train schedules permit.

The ability to spot house trailers at any suitable location in the vicinity of the work site is a consideration that ranks high in the minds of engineering officers. Where the gang is small and uses only a single trailer, the common practice is to spot them on railroad property—near a passenger station for example—where electric and water connections are available.

Where an outfit includes a number of trailers—and even sometimes when there is only a single trailer—a portable generator will provide necessary electric current.



DINING unit can seat about 16 men. Table has drop-leaf sections at ends. In service this trailer will be parked adjacent to kitchen trailer.

In this event a water supply becomes the only consideration in choosing a site for the trailers, but even the need for water does not impose too much of a restriction as it can be hauled several miles if necessary in the interest of keeping the trailers close to the place where the gang is working.

What Are the Savings?

Important savings can be realized when it becomes possible to locate employee housing close to the work site. The officer quoted at the outset of this article based his statement solely on these savings; he was not taking into account other economies that might accrue through use of trailer housing. But the question still remains: What dollar savings can be expected from the use of mobile, off-track housing? There doesn't seem to be an exact answer, because the savings are largely intangible.

At least one road, however, has made an attempt to estimate the savings and has come up with some interesting figures. This road has concerned itself only with expenses incurred when gangs must move on short notice, such as during emergencies. In such instances it may be several days before the camp cars arrive at the new location. When this happens the railroad has to pay for the meals and lodging of the men while they are waiting for the cars to arrive. There is also a loss of productive time when a delay occurs in the movement of the camp after a job has been completed.

When trailers are substituted as housing for an eight-man crew, this road estimates that the savings in meals and lodging while the gang is waiting for its camp equipment amounts to \$700 dollars yearly. For each gang the loss of productive time while waiting for the camp to be moved is estimated to be 26 days a year. For an eight-man gang this involves an expense of \$3,120, which is



KITCHEN trailer has stove, canopy, ice box, sink, work table, cabinets, hot-water heater and living quarters for the cook. Trailers in this group are Mon-o-Coach units.

saved when trailers are used. Thus, the total estimated saving on these two accounts for an eight-man gang is \$3,820 a year.

These estimated economies are exclusive of any other savings, such as would doubtless be realized by having the men closer to the job.

Two Types of Trailers

There are two general types of house trailers—the self-contained and the special-purpose types.

A self-contained trailer incorporates all the essential facilities generally associated with a complete modern home. A typical unit contains a living room, kitchen and dining space, bath and toilet facilities and sleeping accommodations. There is a cook stove, a refrigerator, a sink, a space heater and a hot-water heater. Conventional trailers as manufactured for sale to the general public are of this type. In addition, several manufacturers are producing special self-contained trailers for railroad use, which are capable of housing up to four or five persons.

Special-purpose trailers are so designated because each unit of this type serves a specialized function such as cooking, dining or sleeping—or perhaps the cooking and dining functions may be combined in a single trailer. The kitchen trailer may have living facilities for the cook. Another type of special-purpose trailer is a combination office and a two-man bunk unit, with space for equipment storage at one end.

Trailers of the special-purpose type come into the picture when the gang to be accommodated gets above four or five men, that is, when it becomes too large to be accommodated in a single trailer. The advantages of dividing up the functions between different trailers then become obvious. With special-purpose trailers combina-



FOREMAN'S end of special-purpose trailer which also has living quarters for two men at other end. Shower is installed in middle of trailer.

tions of units can be worked out for housing gangs of any size.

At least a dozen railroads are now using trailers, either experimentally or as a regular practice. At first they used for the most part units of the self-contained type, such as those produced by manufacturers for the regular trade. Designed to provide for the living needs of families of two, three or four people, such trailers could be adapted without change for housing small gangs.

Railroads are following no set pattern in the adoption and use of trailer housing. The most common practice, however, is to start with self-contained trailers for small outfits such as track-welding crews, special-equipment operators and small bridge and building repair gangs.

Examples of Trailer Use

One large road, for example, has 27 two-man track-repair (welding) gangs. Some of these, working in or around terminals tie up at their regular headquarters each night. Others are of the floating type, moving from station to station in their assigned territories as their work demands. The floating gangs formerly were housed in bunk cars and each was also equipped with a specially fitted box car for tools and supplies.

Several years ago this railroad started replacing the bunk cars of these gangs with self-contained house trailers. When a bunk car gets to a point where it is considered obsolete or is in need of extensive repairs, it is believed to be more economical to replace it with a house trailer. So far nine of the gangs have been equipped with trailers. This road has also equipped three special-equipment operators with trailer housing. It is now contemplating the possibility of furnishing its division bridge and building gangs with off-track housing units.

Another railroad is in the initial stages of a program



KITCHEN end of trailer that has dining and recreation area at other end. Kitchen has two refrigerators, stove with overhead exhaust, sink, cabinets, work table and hot-water heater.



OPPOSITE end of combination trailer. Note drop-leaf table, space heater and sliding screen door.



EIGHT-MAN dormitory trailer has space heater, hot-water heater, dry-chemical toilet, shower and lockers. These are Morrison trailers.

which contemplates eventual replacement of all its bunk cars with house trailers. At present it has 13 trailers in service, including both self-contained and special-purpose types. The former is being furnished for small maintenance gangs not exceeding five men. Several such trailers are now in service and the road anticipates having an average of about two per division. This would mean a total of about 35 self-contained trailers.

On this road the special-purpose trailers are now being furnished to gangs of eight or more men. Two of the special trailers are combined for use with each gang; one is outfitted with sleeping, shower and toilet and recreation facilities, while the other is a combination kitchen-dining unit. Two such combinations have been assigned to bridge gangs, and one to a track-maintenance gang.

The road contemplates purchasing quite a number of additional special-purpose units for assignment to other B&B and track-maintenance crews of eight or more men.

Still another railroad is in the midst of a program to "trailerize" practically all of its floating M/W work crews. This program has been in effect several years and the road now has several hundred trailers in service. It will need a large number of additional units in carrying the program to completion.

Six Types In Use

To meet the requirements of various sizes of gangs, this road is using six types of off-track housing units, including both self-contained and special-purpose types of trailers.

These are:

- A self-contained, two-man trailer, mainly for track-repair men (welders) and their helpers and machine operators and their helpers.
- A four-man, self-contained unit accommodating two two-man track repair gangs.
- A dormitory trailer providing sleeping accommodations for six men.
- A kitchen trailer, with quarters for the cook.
- A dining trailer.
- A foreman—two-man trailer with living and office accommodations for the foreman at one end and facilities for two men at the other.

These trailers have been carefully designed to serve the particular needs of this road. By putting them together in the proper combinations, they can be made to accommodate gangs of any size in use on the line.

Officers of this road state that their experience with trailers over a period of years confirms their judgment in embarking on the program.

Because of the interest being shown by railroads in trailer housing a number of trailer manufacturers are offering trailers specially designed for railroad service, including both self-contained and special-purpose units.

It is considered essential that trailers for railroad service be strongly and substantially built for durability and long service. It is especially important, according to one manufacturer, that trailers acquired for experimental use have these qualifications. He points out that if trailers bought for test purposes fail to give good service, the railroad is apt to get discouraged and fail to follow through with the experiment, thereby depriving itself of such inherent advantages as trailers have.

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RAILROAD

B "Upon completion of this 36 months test the Plypaks, bearings, wedges and journals were in excellent condition."

RAILROAD

C "Based on results obtained . . . authority requested to operate 10,000 freight cars equipped with Plypak on 36 month repack basis."

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Current Publications

BOOKS

HANDBOOK OF DRAINAGE AND CONSTRUCTION PROJECTS. 579 pages, illustrations, drawings. Armco Drainage & Metal Products, Inc., Middletown, Ohio. \$5.

This new edition of a book that was first published a quarter-century ago is a comprehensive technical treatment of the design and engineering application of a number of widely used drainage and construction products. In 10 sections and 64 concisely written chapters it covers strength research; strength design; durability studies; durability design; economic factors; design principles and practice; sub-surface drainage; special drainage problems; miscellaneous problems; and installation instructions. In addition there is a section of conversion tables and general tables, an appendix summarizing research on underground conduits, and a well organized index for quick and easy reference.

MASTERING MOMENTUM: A Discussion of Modern Transport Trends and Their Influence Upon the Equipment of American Railways, by Dr. Lewis K. Sillcox. 242 pages, illustrations, drawings. Simmons-Boardman Publishing Corporation, 30 Church st., New York 7. \$5.75.

Material comprising this book was originally presented as a series of lectures at Massachusetts Institute of Technology, and published in 1940. In revising that material in 1953-54 the author has incorporated advances achieved in railway mechanical engineering subsequent to publication of the first edition. Chapters cover mechanics of train operation and train braking; railway car wheels; railway car axles; locomotive and car truck design—rail reactions and riding qualities; and draft gear.

MOVING THE EARTH; THE WORKBOOK OF EXCAVATION, by Herbert L. Nichols, Jr. 1280 pages, illustrations, drawings. North Castle Books, 212 Bedford rd., Greenwich, Conn. \$15.

Seven years in preparation, this book describes important types of excavating, hauling, and grading equipment, and almost every type of job and circumstance in which such machines are used. It is slanted to the needs of the men who do the actual earthmoving—the small contractor, the foreman and the operator. However, since their work is basic to all excavation, most of the needs of the engineer, the architect, the superintendent and the student are covered also.

The book is in two sections. Part One discusses jobs the excavating contractor is called upon to do. The first

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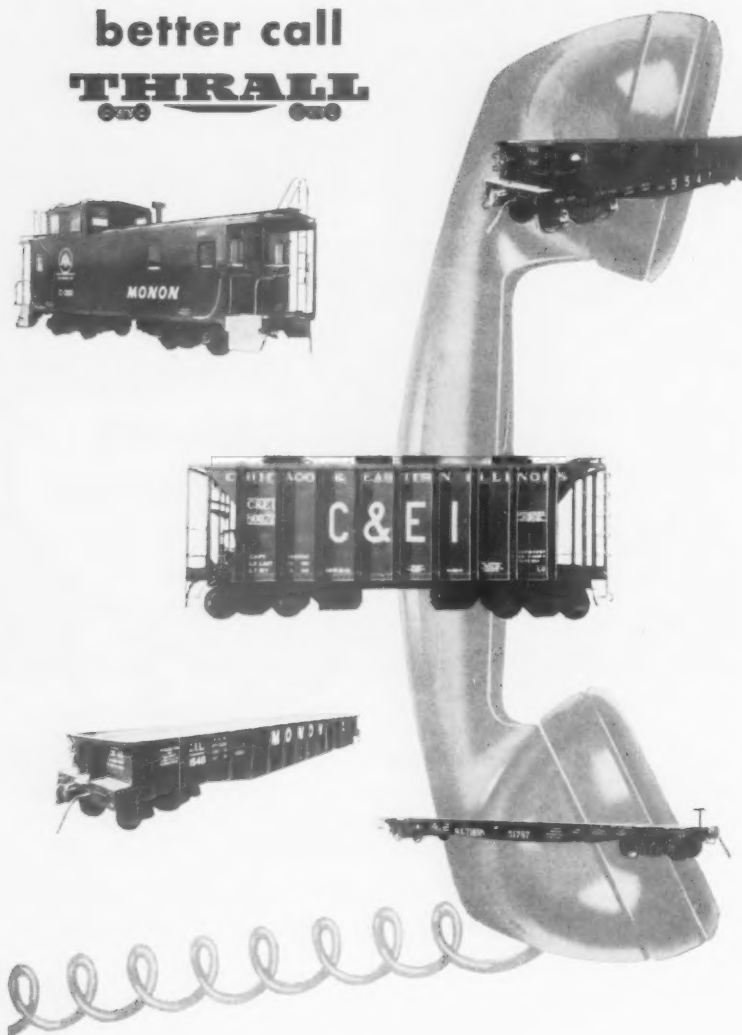
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10 chapters are concerned with the work itself; the basic ways to do it; the problems that arise, and the applications of different types of equipment to the work. Chapter 11 discusses financing, bookkeeping, estimating, and insurance in regard to the requirements of the excavating engineer. Part Two is focused on the machines themselves. Important types of excavating, hauling and grading equipment are discussed and illustrated. Treatment includes mechanical descriptions of the parts and assemblies that go into the machines, the underlying principles of construction, the ways in which special work requirements are met, and suggestions on adjustment and maintenance.

THE END OF THE LINE, by Bryan Morgan. 255 pages, illustrations. Cleaver-Hume Press, Ltd., 31 Wright's Lane, Kensington, London, W.8, England. \$4.

"A book about railways and places mainly continental" is the way the author subtitles his book. Those who like trains will find many unusual private and narrow-gauge lines described here without a mass of technical data; those who enjoy travel books will discover one in which the cities and countries of Europe are seen through new eyes.

PAMPHLETS

THE STORY OF CREATIVE CAPITALISM. 32 pages, illustrations. E. I. du Pont de Nemours & Co., Wilmington 98, Del. Free.

On the average business day, nearly one million Americans act as capitalists, investing more than \$230 million of savings in a variety of financial enterprises, it is estimated in this booklet. Portraying the function and history of capital in our economy, it uses photographs liberally to show a cross-section of typical investors, how their savings are put to work, and the benefits to the nation from the higher productive capacity created by capital.

SO PEOPLE MAY PROSPER. 36 pages. National Association of Manufacturers, 2 E. 48th st., New York 17. \$1. Quantity prices on request.

Needling our economy by hypodermics of "purchasing power"—as proposed by prominent union leaders and certain economists—is described by the NAM as an inadequate, and even dangerous, prescription for national growth. With release of this new study, NAM presents to the public a program for national prosperity based on full production and increased productivity. The study advocates measures to permit or encourage growth of the nation's productive facilities as the pathway to high employment and a rising living standard.

MECHANICAL DIVISION REPORTS

(Continued from page 29)

inspection. A survey among 33 roads indicated no need for this. The lightweight knuckle, found to crack in service and discontinued in 1950, is being removed only through normal replacement by the majority of members surveyed.

Three draft gears were tested and given approval during the year. The one short-pocket gear will be added to the Interchange Rules and there was conditional approval for the two standard gears. Five other short-pocket gears have been submitted for specification test. A car owner was advised that the request to replace Farlow springs with the pads from rubber draft gears did not violate Interchange Rules, but should be studied further.

The committee called attention to the center sill reaction developed by high-capacity gears and warned that the high capacity reported for some rubber gears after specification test would not necessarily protect cars. After studying methods of increasing draft gear capacity, the conclusion has been made that long travel gears have the least center sill reaction. An installation of long-travel gears has been authorized for 150 cars. They require a special draft gear pocket, and it is the intention of the committee to authorize additional non-standard installations if service information can aid draft gear development work.

Comments on the report indicated general approval of the committee's recommendations and actions. The coupler manufacturers, to whom the Type E coupler failures were referred, see little opportunity to increase its strength. A change of material would effect a limited improvement. More than this would require a complete redesign of a coupler which is gradually going out of use.

That the only way to reduce center-sill pressure with the draft gear is to increase the travel was emphasized several times. The committee is asking two questions: 1. How much capacity can be obtained without changing the distance between the truck center and the coupler striking plate? 2. How much capacity must be provided?

A long-travel gear development was initiated on the Santa Fe for application on mechanical refrigerator cars to protect the refrigerating equipment from the effects of violent shocks. A draft gear manufacturer was asked to cooperate.

Stricter Brake Testing Rule

Stuck brakes are a perennial problem. AB portion cover leakage, brake pipe leakage, and general car maintenance contribute most to this difficulty, with over 60 per cent chargeable to train line leakage. The Committee on Brakes and Brake Equipment recommended to the Arbitration Committee that there be arbitrary testing of air brakes within stenciled date limits on all cars on repair tracks.

Specifications were prepared for hose clamps used on air hoses, and for safety equipment to supplement the electropneumatic brake control for cars that have no protection in event of circuit failure. An improved dirt collector and cut-out cock was established as an alternate standard. There were revisions in the specifications for the condemning gage used on hose couplings, for the single car testing device, and for the condemning gage used on the hose end of hose couplings and nipples. The ORR brake cylinder release valve specification was adopted by letter ballot and included in the Manual. Approval was given to the Caco brake cylinder release valve for limited installation, to brake pipe installations on cars with the P-S cushion underframe, and to the Dresser coupling as an approved fitting. The Garlock brake cylinder packing cup was tested and appeared to be satisfactory. Late design features would be incorporated in used AB brake portions according to a recommendation to the Arbitration Committee.

Diesel locomotives should have standard angle cocks, a change should be made in pattern marking brake shoes,

and replacement of dual AB-1-B brake installations with a single equipment necessitates hand brake changes, according to other committee actions. A member road was advised on inside limits for reclaiming brake cylinders. Other roads were informed that the present trouble-shooting method for brake burns is adequate, and that RDC cars are entitled to extension of cleaning periods for brake equipment. ICC revisions of Rule 208 (a) require changes in the Interchange Rules to which this committee had no objection.

Study of the Wabco angle cock, and of angle cock location on cars with Tightlock couplers, is continuing along with nine other matters concerning brakes and brake equipment. There has been a preliminary investigation of the AC brake equipment and work is now going on with manufacturers to determine whether its desirable features can be made part of AB portions.

The discussion strongly supported the proposal to increase from 6 to 12 months the maintenance interval on certain air brake items covered in Rule 208(a). One member said the equipment does not belong on a modern diesel if it won't go 12 months—that, after all, if the D22 equipment can go two years there is no reason that D24 can't go half that long.

Another question concerned the recommendation for the type cutout cock that should be used. The PRR has equipped all its locomotives with either brake-pipe end cocks or standard angle cocks to avoid errors from different handle positions and recommends this practice in the interest of safety and standardization. Part of the committee also felt this way, but the majority favored the proposal as written.

Ways to reduce hose coupling leakage were discussed, as this leakage comprises a majority of brake pipe leakage which is about two-thirds of the total leakage on a car. A cold weather test and closer control of the conditions of the coupling and the method of application of the gasket were felt to be helpful.

Safety Appliances

The ICC Bureau of Safety has given the AAR a proposal to revise the Safety Appliance Regulations in existence since 1911. The draft indicated that required changes would have serious effects on railroads and would be costly, according to the Safety Appliance Committee. Some AAR counterproposals have been prepared and a working committee is cooperating with ICC representatives to prepare a modified proposal. Approval of safety appliance details for tank cars with no precedent involved 206 committee actions during the year. Six designs of metal running board have been tested and approved for inclusion in the Interchange Rules, and a brake step design is pending.

Floor discussion brought out the point that present equipment conforming to present safety regulations will not have to be changed to meet the revised code. Members will be given an opportunity to comment on this before final adoption in the hope that the new provisions can be complied with on all new construction.

New Wheels to Get Tests

The report of the Committee on Wheels gave details of manufacturing and service tests of the AAR X-2 and AAR X-3 cast steel wheels produced by the Southern Wheel Division and Griffin Wheel Company, respectively. They now have limited approval but additional installations will be authorized by the committee. Interchange Rules and Manuals have been changed to incorporate these wheels. An application has been received to authorize service tests of a centrifugal cast steel wheel produced by a division of the United Steel Companies of England. It was recommended that this wheel be approved for limited installation and shown in the Interchange Rules. It will be designated the AAR X-4.

Further work is to be done on the effectiveness of ultrasonic inspection of diesel locomotive wheels, and on the

tolerances, marking and classes of wrought steel wheels. Work on the effect of shot blasting on diesel wheels has been stopped, but a study of the dimensions of these wheels continues. A new 40-in. diesel locomotive wheel and a 34-in. wheel for RDC cars were recommended for letter ballot adoption. A recommendation was made to the Arbitration Committee on the responsibility for overheated tubular axles. Revision of the Wheel and Axle Manual has been delayed and seven changes have been issued instead.

Axle Research Continues

A final report on the fatigue tests of 5½ by 10-in. freight car axles is being prepared by the Committee on Axles. On the basis of the tests, the committee recommended, for letter ballot action, the adoption as an alternate standard to the AAR standard (black collar) axle, the "forged" freight car axle with raised wheel seats for plain or roller bearings.

Research is continuing on the effect of heating on fatigue resistance of plain bearing axles. Overheating in actual service does affect the fatigue strength of axles. The effect of copper penetration was not determined. The effect of a second overheating of axles in service was under investigation, but has been discontinued because of insufficient data and lack of specimens. It is planned to use the EMD test car to continue work on the development of fatigue cracks between axle seats in AAR roller-bearing passenger car axles. The Navy continued to use the fatigue test equipment at Canton whenever possible, but Timken has informed the committee that it needs the space occupied by this laboratory. It is to be moved to the research center at Chicago.

Prices Revised Upward

The Committee on Prices for Labor and Material carries on a continuous analysis of material, labor and new equipment costs. Changes shown in the committee's annual report are published in a supplement to the code of interchange rules effective August 1.

Labor charges and combined labor and material charges are increased by an award for paid holidays averaging two per cent of present basic rates of pay and by an award for health and welfare benefits averaging one per cent of present basic rates of pay.

Material and parts prices show small changes, most of them upward. Exceptions are couplers, most of which are a few cents cheaper, several sizes of journal boxes, brake beams and extra heavy pipe. Prices of passenger car axles are down.

Standard Materials Specifications

Material specifications prepared by the ASTM, SAE and other industry-wide agencies will be used as AAR standards whenever practical in the future, the Committee on Specifications of Materials reports. They will be reprinted with an AAR specification number but will also include the number of the organization which originated them. Materials conforming to industry-wide standards are frequently available at lower costs than AAR standard materials. When applicable for railroad service, the committee will approve the use of the other standards, and will continue to write specifications only for those items peculiar to the railway industry.

Work is going on with oil companies and engine builders to develop test techniques for measuring the performance of railroad diesel lubricating oil. The committee approved a joint committee action which prepared a specification for fire resistant refrigerator car insulation.

Recommended for letter ballot action were changes or elimination of seven specifications, and submitted as information were changes in four others.

A proposition to mark bearings by the day and month was questioned during the discussion as being too costly,

and the proposition was not offered as a letter ballot item at this time. It will be revised and clarified for submission later. Another clarification concerned the scope of the diesel lubricating oil project. It will not cover the mixing and compatibility of different oils.

New Refrigerator Car Specifications

New specifications for standard refrigerator cars suitable for fruits and vegetables are submitted by the Committee on Car Construction and recommended for letter-ballot action. The principal changes are the addition of provisions for welded construction; increase of permissible height, floor to ceiling; insulation increased from 3 and 3½ in. thick to 4 and 4½ in. thick; and thermal conductivity in Btu per inch of thickness per sq ft per degree difference of temperature reduced. The specifications call for floor racks capable of supporting heavy lift trucks, provisions for stage icing (formerly optional), drain tubes extending below the journal-box opening, and sliding as well as hinged side doors.

Side Frames and Bolsters

In answer to a request sent all member roads, 242 broken side frames were reported by 50 member roads for the year ended March 1, 1955. Only seven of these were failures of AAR approved designs. Two pattern sizes of a single design accounted for 16 failures; another, for 15. The subcommittee proposes to eliminate 10 of the non-approved patterns, for each of which four or more failures were reported, by prohibiting them in interchange, effective January 1, 1957. It proposes further that new cars built on or after January 1, 1956, must be equipped with approved side frames, and that after January 1, 1960, all freight cars must be so equipped to be acceptable in interchange.

These proposals are presented for the consideration of the Car Construction Committee as a whole and the Arbitration Committee.

Inadequate Box-Car Design

The alternate standard light-weight welded box car, the drawings for which are in the Supplement to the Manual, has been rendered inadequate by faster speeds, longer trains and step-ups in switching operations. The committee recommends that the drawings of this design be made obsolete and removed from the Supplement.

The committee proposes that the box-car drawings in the Supplement to the Manual be changed to show floor boards 2¾ in. thick, supported by three 6.7-lb Z-bar longitudinals on each side of the center sill. The present 1¾-in. boards, supported by two longitudinals on each side of the center sill, are no longer considered strong enough.

"Full-Cushion" Trucks a Problem

In its 1953 report the Car Construction Committee recommended that cars equipped with Allied Full Cushion trucks be prohibited in interchange. This was later withdrawn and certain maintenance measures recommended to avoid some of the accidents then occurring. The committee now recommends that the trucks be overhauled at two-year intervals and specifies the procedures which should be followed. All derailments should be reported and owners should consider a replacement program. The Arbitration Committee has included in this year's report an added paragraph in Rule 3 requiring that, effective January 1, 1956, these trucks which move in interchange must have the improved swing hangers and swing-hanger shoes shown by the committee in this report.

A subcommittee has prepared revised specifications for repairs to certified brake beams to include the Number 24 beam and new types, and to clarify the matter of repairs to beams when the fundamental relation between the tension and compression members is not disturbed. Wear or corrosion limits of tension members of different designs are also set forth.

Provisions for heavier brake levers and larger brake-lever



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TEXTITE

AIR SEPARATOR

CLEAN DRY AIR FOR ALL AIR LINES

TEXTITE AIR SEPARATOR Model S

Prevent . . .

• Washed Out Lubricants	• Damaging Rust to Tools
• Scored Cylinder Walls	• Worn Gaskets and Seals
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• No Filtering Elements to Clean or Replace
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New! **Safety for AIR BRAKE EQUIPMENT**

Wet and dirty air passed into train lines during charging endangers the safe operation of rolling stock brake equipment. Eliminate slow release, stuck or frozen brake cylinders.

New! **Reliability for OPERATING SCHEDULES**

Schedules are delayed when air supply lines freeze. This greatly increases charging time and the possibility of delayed schedules. Air thoroughly dried and cleaned by TEXTITE SEPARATORS eliminates these hazards.

New! **Higher Quality WORK**

Air tools are not efficient when dirty, wet air is used. Work spoilage results in many instances. Supply CLEAN, DRY AIR with a TEXTITE —get top efficiency from air tools.

New! **Lower MAINTENANCE**

Eliminate maintenance costs, repairs and replacements on air tools, dirty, wet air supply; lubricants washed from moving parts causing wear; dirt, scale and rust damaging seals and finishes all cost money. TEXTITE saves cost . . . saves jobs . . . saves tools!

pins are also proposed for use with brake beams of 24,000-, 28,000- and 36,000-lb capacity, in order that AAR recommended fiber stress limits be not exceeded.

Other Items

A subcommittee proposes that the height of the rim of the truck center plate be reduced from $1\frac{3}{4}$ in. to $1\frac{1}{4}$ in. to relieve the heavy contact between the rim of truck plate and the body center plate. The interference occurs after 15 or more years of wear. The report describes a simple mounting for an air-motor grinder by which the rim of existing truck center plates can be ground down to the $1\frac{1}{4}$ -in. height.

It is recommended that changes be made in the Manual and interchange rules to permit the splicing of centersills on cast steel underframes without the use of splice plates. This is proposed as a letter-ballot item.

When cars are moved after journal-box lids are opened for inspection the lids on gondola and flat cars tend to catch above the inward flange at the bottom of the side sill.

The report illustrates a horizontal shield plate welded to the bottom of the sill, under which the journal box lid remains as the truck turns on a curve.

Confusion arises in utilizing cars originally built for

freight-train service but later converted for passenger-train service without changing the numbers to a passenger-car series.

The Operating-Transportation Division proposed the following rules for such conversions: 1. The changes must be approved by and the cars be acceptable to the AAR Mechanical Division as passenger equipment. 2. The cars must be numbered in a passenger car series distinguishable from a freight car series. 3. The cars must be registered as passenger equipment in the Official Register of Passenger Train Equipment.

The committee proposes the necessary changes in the Manual to carry out the Operating-Transportation Division's requirements, and submits them for letter-ballot action.

Comment on the report suggested that the committee was rather liberal in permitting the use of altered designs of truck side frames to accommodate the various integral details such as brake hangers, spring planks, and others. These increase the difficulty of supplying replacements when necessary.

Referring to the recommendation with respect to box car floors consideration was asked for the application of perforated plates on the floor area between the doors. It was suggested that the replacement of swing hangers on the Allied full cushion truck, as recommended by the committee, was far from an adequate rehabilitation of these trucks.

Labor & Wages

Firemen Wage Demands Go to Emergency Board

An emergency board, appointed by President Eisenhower June 17, began hearings in Chicago June 21 on the wage dispute between the railroads and their employees who are represented by the Brotherhood of Locomotive Firemen & Enginemen.

Members of the board are: Martin P. Catherwood, dean of the New York State School of Industrial and Labor Relations, Cornell University; Curtis G. Shake, former justice of the Indiana Supreme Court; and G. Allan Dash, labor relations specialist, of Philadelphia.

No strike date had been set when the board was created, but indications that the case was entering the strike-threat stage prompted the National Mediation Board to recommend the Presidential action.

The dispute involves brotherhood demands for an additional 28 cents per hour (32 cents instead of 4 cents) for its members in yard service who convert from a 6-day, 48-hr week to a 5-day week of 40 hours; and for guaranteed minimums of \$18 per day for firemen and \$20 per day for engineers. BLFE members now have such minimum guarantees only in passenger service, where they are \$13.84 for firemen and \$15.73 for engineers.

Cross-Examination Refused In BLF&E Wage Hearing

Because "legal procedure has crept into this business until it threatens to

swamp us," and because "you can't have an extension of the bargaining table with this cross-examination by counsel which is designed only to irritate and to inflame feelings already inflamed," the Brotherhood of Locomotive Firemen & Enginemen has refused to permit cross-examination of its witnesses in its current wage and hours demand case before a Presidential emergency board.

Harold C. Heiss, counsel for the BLF&E, speaking before the board in Chicago on June 22, said that "we will tell [the board] our story in the presence of or in the absence of the railroads, whichever you and they choose. And we will let the railroads tell you their story either in our presence or in our absence, whatever you choose to do. If the board has any questions . . . you ask . . . and we will respond . . . but I have advised my clients they do not have to respond to cross-examination, it is not a contribution to determination of the facts and that it is not the historical background of the Railway Labor Act. They have asked me to tell you that they do not wish to submit to . . . questions asked by these carriers, and I ask you not to ask us to do it. We have made up our minds."

This statement momentarily halted the board's hearing of the case. Counsel for the carriers, Howard Neitzert, later told the board that, in his association with Donald Richberg, "who had more than anyone else to do in writing the Railway Labor Act," he had never experienced a case in which Mr. Richberg objected or suggested that there be no cross-examination. "So far as I know," he went on, "I have never been in a case in which he [Mr. Richberg] represented the parties in which cross-examination was not permitted."

Mr. Neitzert commented that Presi-

dent H. E. Gilbert of the BLF&E had been cross-examined by Mr. Neitzert before "and he didn't seem very inflamed while I cross-examined him nor did he seem inflamed afterwards nor was anybody else that I have ever cross-examined."

The board ultimately decided, in the face of Mr. Gilbert's steadfast refusal to answer the questions of the carriers' counsel, to try to proceed without such questioning.

The union is seeking establishment of an \$18 daily minimum wage for road firemen and \$20 for road engineers and a 28-cent hourly increase for men employed on a 40-hr week basis. Mr. Neitzert termed the demand a "preposterous effort to add more padding to 'featherbedding' already enjoyed by these firemen who have no fires to attend." If granted, the demand might cost carriers as much as \$700 million, if extended to all classes of railroad employees, he stated.

The emergency board consists of Curtiss G. Shake, Vincennes, Ind., former justice of the Supreme Court of Indiana; G. Allen Dash, Jr., Philadelphia, arbitrator; and Martin P. Catherwood, Ithaca, N.Y., dean of New York State School of Industrial and Labor Relations, Cornell University.

Figures of the Week

Freight Car Loadings

Loadings of revenue freight in the week ended June 25 totaled 799,472 cars, the Association of American Railroads announced on June 30. This was an increase of 14,047 cars, or 1.8%. (Continued on page 46)



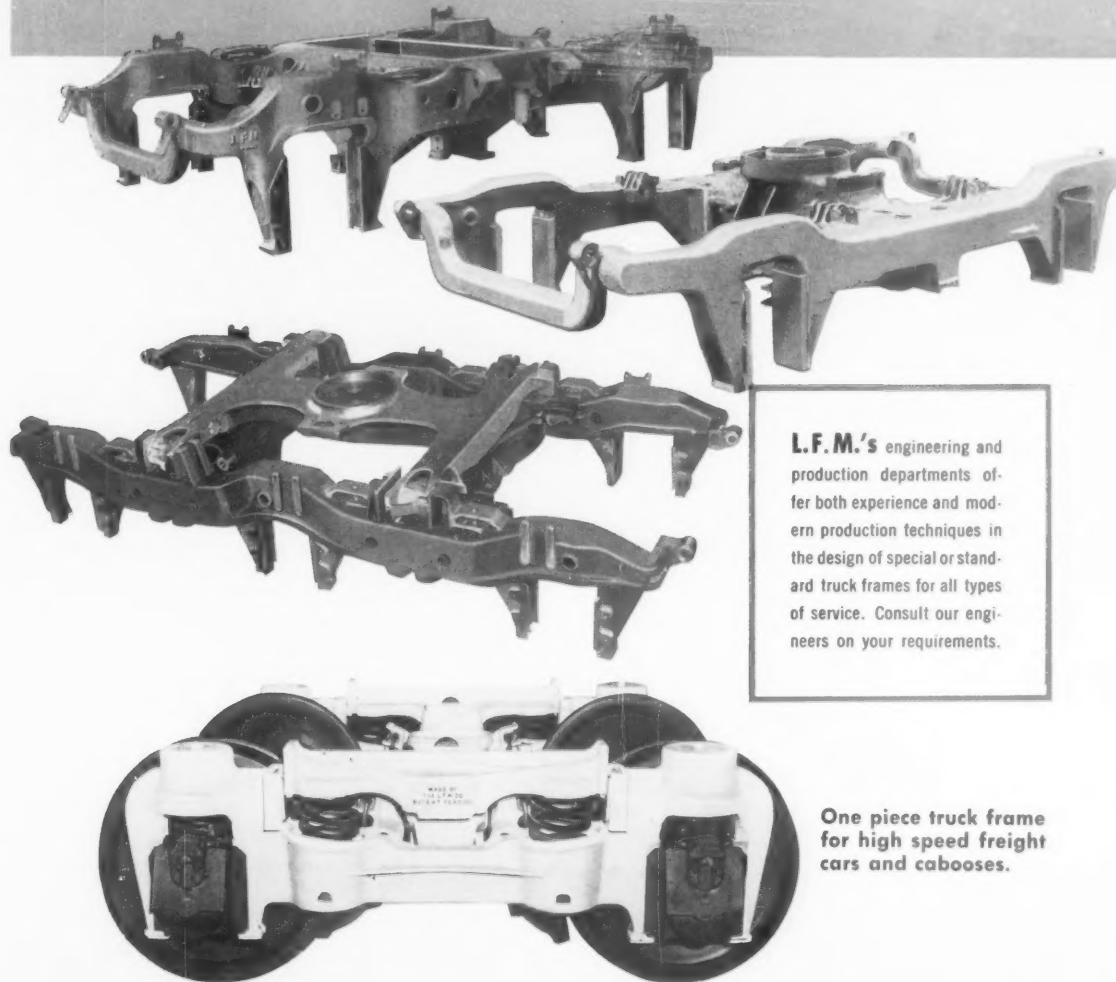
Backed By 83 Years of Railroad Manufacturing Experience...

TRUCK FRAMES

...To Meet Requirements Of High-Speed Passenger Cars, Diesel Locomotives & Switchers

The vast L. F. M. facilities have long been recognized as a major source of production for heavy railroad equipment. In truck

frames alone, L. F. M. has produced over 22,000 units for all types of service for every major railroad.



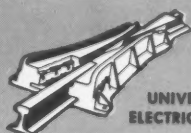
L.F.M.'s engineering and production departments offer both experience and modern production techniques in the design of special or standard truck frames for all types of service. Consult our engineers on your requirements.

One piece truck frame for high speed freight cars and cabooses.

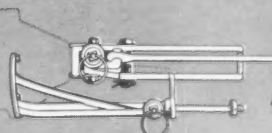
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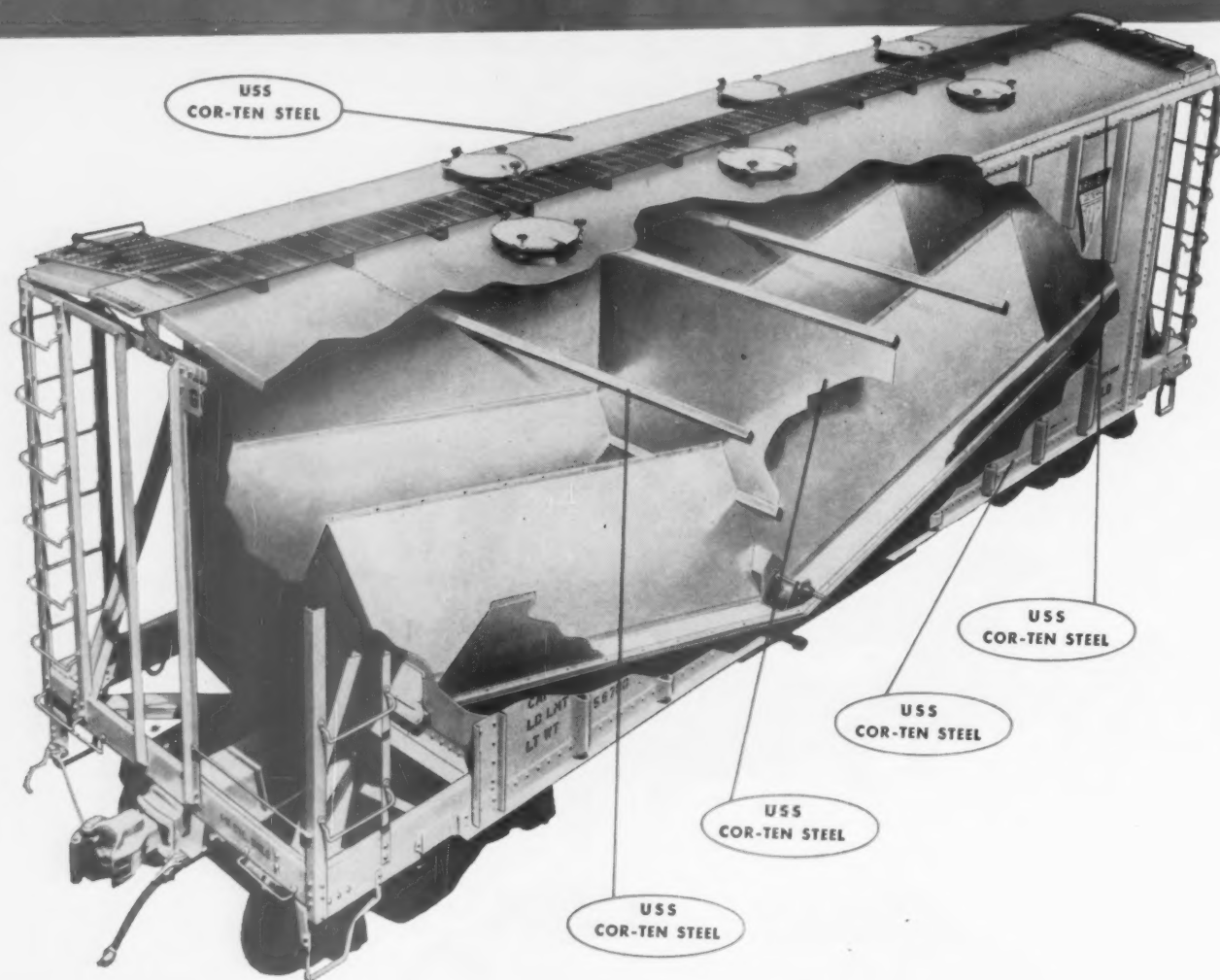
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190,000 freight cars have been built



USS HIGH STRENGTH STEEL

better with USS COR-TEN Steel since 1933

In General American's new AIRSLIDE[®] cars

USS COR-TEN Steel was selected to minimize corrosion and keep maintenance costs low

The increased demand by shippers of dry, granular, and powdered bulk materials for a special car that would protect the lading and be easier to unload has been answered by the General American Transportation Corporation, Chicago. It's the new AIRSLIDE Covered Hopper Car.

How well the AIRSLIDE car fills the bill can be deduced from the fact that since its introduction less than two years ago, more than 600 are today in service or on order.

Shippers who hitherto have not found bulk handling feasible are now using these cars and are realizing substantial savings in container, dunnage and labor costs. Improved sanitation and reduced damage from contamination are additional advantages these shippers appreciate.

To solve the difficult problem of high-speed unloading, the GATX engineers have utilized the Fuller* Airslide principle by which the lading is aerated and fluidized, causing it to flow like water to the double hopper doors.

They selected USS COR-TEN Steel for car construction for two reasons: (1) to obtain high strength with no increase in weight, and (2) to reduce interior corrosion, caused by condensation, to a minimum.

USS COR-TEN Steel's high yield point of 50,000 psi. and its high resistance to atmospheric corrosion, 4 to 6 times that of carbon steel, made it a logical choice on both counts.

COR-TEN Steel's high corrosion resistance plus the fact that paint adheres more tightly to it are further assurance that these AIRSLIDE cars will maintain their attractive appearance longer and will better resist the attack of atmospheric corrosion both inside and outside.

By combining a unique car design with superior COR-TEN Steel construction, the builders of the AIRSLIDE car have made available to shippers an efficient means for transporting commodities never successfully handled in bulk before—and a car that can be confidently counted on to render long time service with the least amount of maintenance.

Find out how readily USS COR-TEN High Strength Steel can be adapted to your designs. Our engineers who pioneered its application in freight equipment of every type can place at your disposal an unequalled experience in its use that cannot fail to be helpful. We welcome your inquiries, and the opportunity to work with you.

(*The Fuller Company: A subsidiary of General American Transportation Corporation.)

See "THE UNITED STATES STEEL HOUR"—Televised alternate weeks—Consult your newspaper for time and station.

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UNITED STATES STEEL

Figures of the Week

(Continued from page 42)

compared with the previous week; an increase of 86,312 cars, or 12.1%, compared with the corresponding week last year; and a decrease of 18,978 cars, or 2.3%, compared with the equivalent 1953 week.

Loadings of revenue freight for the week ended June 18 totaled 785,425 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CAR LOADINGS			
For the week ended Saturday, June 18			
District	1955	1954	1953
Eastern	128,437	111,833	135,753
Allegheny	152,216	126,912	162,424
Pocahontas	62,451	51,768	59,745
Southern	124,710	117,877	125,354
Northwestern	129,896	118,302	131,914
Central Western	128,379	121,131	132,596
Southwestern	59,336	59,414	64,792

Total Western Districts	317,611	298,847	329,302
Total All Roads	785,425	707,237	812,578

Commodities:			
Grain and grain products	53,662	57,073	58,613
Livestock	5,597	5,798	7,038
Coal	136,861	114,836	138,892
Coke	12,407	7,291	13,856
Forest Products	48,822	43,524	47,310
Ore	81,242	72,110	91,101
Merchandise l.c.l.	66,622	60,087	66,867
Miscellaneous	380,212	346,518	388,901

June 18	785,425	707,237	812,578
June 11	786,707	697,583	797,252
June 4	713,673	612,314	775,489
May 28	790,176	689,292	786,755
May 21	774,419	681,967	769,618

Cumulative total, 24 weeks	16,502,507	15,170,107	17,545,325
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In Canada.—Carloadings for the seven-day period ended June 14 totaled 84,549 cars, compared with 107,750 cars for the previous 10-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
June 14, 1955	84,549	32,061
June 14, 1954	72,507	27,884
Cumulative Totals:		
June 14, 1955	1,686,248	736,842
June 14, 1954	1,564,829	667,674

Traffic

"If RRs Can't Supply Cars, Let the Government Do It"

Unless railroads take quick action to increase freight-car ownership "it will be necessary to advocate government acquisition and ownership of box cars," C. J. Harriss, executive secretary of the Buffalo, N.Y., Corn Exchange, said in Cleveland recently. Addressing a quarterly meeting of the Great Lakes Regional Advisory Board, Mr. Harriss described what he called a "long-time intolerable situation in the Buffalo area where too few cars to take away the output, and often unclean cars, compel flour mills to halt production."



CALLED A "RAIL-LESS SHUNTER" by its owner, Dominion Steel & Coal Corp., this Model TM Hough Payloader tractor is used to switch loaded hopper cars to the company's car shaker and dumpers on its so-called International Piers at Sydney, N.S. These largest coal shipping piers in Canada transfer some two million tons of coal annually from cars shipped

from the company's nearby mines to vessels for movement to Canada's east coast, up the St. Lawrence river and to foreign countries. Equipped with a torque converter, 100-hp engine, large pneumatic tires and four speeds in both forward and reverse, the Payloader can handle up to ten 40-ton box cars on reasonably flat grades.

Mr. Harriss called it a paradox that U. S. railroads are making great efforts to gain business and at the same time seem to be incapable of "serving us during these trying times." The board's executive committee said action by railroads is imperative. It pointed out that even if orders for new box cars were

placed now, "in this particularly acute situation," it would be "well into 1956" before the cars could be delivered. The committee indicated that while it "despised" nationalization activities by the government in railroad affairs, "this last-ditch step might become necessary as an emergency solution."

Some Truck Traffic Sticks

Not all lcl is going back to highways as truckers resume service in the West—SP&S plans a follow-up sales drive for the next 30 days to strengthen its hold on new business

While it may be too early for a final conclusion, western railroads appear to have gained at least some new customers (and some new traffic from old customers) as a result of the recent strike of western truckers (*Railway Age*, June 20, page 8, June 13, page 11).

A spot check of principal roads in the 11-state territory affected by the walkout reveals varied experiences. Some roads do not want to hazard a guess as to how much of the diverted traffic may ultimately stick. But many report traffic still well above the pre-strike level a week to 10 days after the truckers resumed service.

A fairly typical experience is that of the Spokane, Portland & Seattle, whose traffic manager, G. F. Ehlen, reports: "Our line handled a large volume of many different lcl commodities because of the strike and I feel that we will

be able to retain only about 10% over and above the normal lcl that we have been handling. Of course we did handle quite a few shipments that move only occasionally and it is hard to predict at this time what portion of this particular business will continue to move by rail."

Mr. Ehlen adds, significantly: "We plan to make a careful follow-up solicitation drive on lcl during the next 30 days and this may produce additional results."

The Northern Pacific likewise is striving to hold its traffic gains. Otto Kopp, general freight traffic manager, comments: "We continue to handle a substantial volume of lcl traffic which formerly moved by highway. But it is too early to give any estimate of what volume will remain with our company. We are doing everything possible service-wise to retain this traffic."

A Great Northern spokesman reports that the "substantial volume increase experienced during the strike" has been falling off since the strike was settled. "We're considerably below the strike volume peak now, but still appreciably above the pre-strike level," he says.

A somewhat different experience is reported by the Western Pacific. A spokesman in San Francisco reports all traffic has returned to the trucks, although the WP expects to retain some carload and freight forwarder traffic that previously went by truck.

"During the western truck strike, lcl traffic on the Denver & Rio Grande Western more than doubled at Denver and Salt Lake City," states Lawrence Fulwiler, supervisor of merchandise service. "In the two weeks since settlement of the strike, lcl business at these two points is averaging 85% above the three weeks immediately prior to the strike, indicating that a portion of the business is staying with the rails."

The Rock Island finds a "small amount of lcl accrued to us," according to Ephriam Rigg, vice-president. "We hope it will stay, but it is pretty much a matter of conjecture at this time," he says.

Meantime, at the other end of the country, the New Haven and Boston & Maine were reporting substantial increases in freight traffic as the result of a truck drivers' strike in New England.

Plan for More Cars, Asks Pacific NW Board

Citing the "serious shortage of freight cars nationally" and adding that "Class A cars are particularly short," the Pacific Northwest Advisory Board has asked the nation's railroads to attack the problem on all possible fronts.

A resolution passed at the board's 92nd regular meeting in Tacoma, Wash., June 16-17, warned that "carriers and shippers are losing millions of dollars as a result of substantial diversion to trucks, water lines and Canadian transportation." It urged Class I carriers to "embark upon a campaign to repair bad order cars, upgrade cars and adopt a car building program that will keep pace with the growing economy of the country and designed to meet shipper needs," and added that this was a reiteration of statements made by the board since the close of World War II.

The board formed a shipper-carrier LCL Committee to study problems arising from increased lcl traffic within board territory. R. V. Boyle, traffic manager, Brown & Haley, Tacoma, was named chairman.

Board President W. C. Cole, traffic consultant, Portland, Ore., asked for a stepped-up car efficiency program in view of the increase in the number of cars held beyond 48 hours for unloading, both nationally and in the board's territory, as compared to 1954.

Guest speaker P. H. Draver, vice-

SAUCE FOR THE GANDER

"The New York, New Haven & Hartford Railroad has a dandy idea. It wants to make New Rochelle one of the major suburban railroad stations in the country. . . .

"It would be a grand arrangement for everybody, including New Rochelle.

"There's just one little catch. While the railroad says it would 'contribute generously' to the cost, it expects New Rochelle, with federal help, to foot most of the bill. It suggests that New Rochelle buy the railroad's 10-acre freight yards and build the station, along with the necessary parking facilities.

"The railroad officers offer the plan with a straight face. They probably anticipated the indignant reaction of Mayor Church of New Rochelle. He says it's the railroad's job 'to furnish travelers with a decent station and also adequate parking facilities.'

"Mayor Church seems to have missed the railroad's point. What it is suggesting is that New Rochelle do for the New York, New Haven & Hartford no more than what dozens of municipalities have done for the airlines—used their own land to build airports with adjoining parking facilities.

"The New Haven road is saying, in effect, that if municipalities want better railroad service, they're going to have to do something to get it—just as they have done something to get air service."—From an editorial in the Newark, N.J., Evening News.

president of the Milwaukee, explained in detail the significance of the proposals of the President's Cabinet Committee Report on Transport Policy. He termed the report a "tremendous step forward in our transportation thinking."

Supply Trade

John J. Brinkworth, retired vice-president of the New York Central, has joined the public relations firm of John J. O'Leary & Co., Englewood, N.J., as senior consultant on railroads and transportation.

Harold R. Weibel has been named district manager of railroad and industrial sales for Pyle-National Company at St. Louis, succeeding R. P. Underwood. Mr. Weibel was previously with General Electric Company.

American Brake Shoe Company has appointed William J. Grant southern sales manager for railroad products for three company divisions—National Bearing, Southern Wheel and



HERBERT J. KNUDTEN, president of Universal Engineering Company, who has been elected vice-president of the parent company, Pettibone Mulliken Corporation. Mr. Knudten will continue in his present capacity with Universal, at Cedar Rapids, Iowa.

Brake Shoe & Castings. He will continue to be located in Norfolk, Va., having previously been manager of southern sales for National Bearing division.

William P. Drake, executive vice-president of Pennsylvania Salt Manufacturing Company, will succeed George B. Beitzel as president on July 1.

G. Allen Lovell has been elected a vice-president of United States Rubber Company, and appointed general manager of its mechanical goods division, effective July 1. He has been assistant general manager of the division.

C. A. Henrickson, sales engineer for the Grip Nut Company, has changed his headquarters from Minneapolis to Milwaukee, but will continue to service the Minneapolis-St. Paul area.

OBITUARY

Rudolph Pfeiffer, manufacturers' correspondent, Industrial Sales division, Caterpillar Tractor Company, died June 4 at Peoria, Ill.

Securities

Authorizations

CHICAGO, BURLINGTON & QUINCY.—To assume liability for \$8,700,000 of equipment trust certificates to finance in part purchase of 30 diesel-electric units, 400 gondola cars and 200 flat cars at an estimated total cost of \$10,902,000 (Railway Age, June 13, page 69). Division 4 approved sale of the securities at an interest rate of 2 7/8% for 99.33—the bid of Kidder, Peabody & Co. and five associates—which will make the annual cost of the proceeds to the road approximately 3%. The certificates, dated



THE LARGEST SINGLE GROUP of Boy Scouts ever to earn scouting's merit badge in railroading received the award at Olean, N.Y., June 8. The badges went to 107 boys who had studied for them under personal instruction given by members of the

Pennsy Family Club of Olean, a Pennsylvania employee organization which undertook the project as a community relations gesture. The club also presented each of the scout merit badge winners with a chromium plated rail spike.

July 5, will mature in 30 semiannual installments of \$290,000 each, beginning January 5, 1956. They were reoffered to the public at prices yielding from 2.2 to 3%, according to maturity.

Dividends Declared

CAROLINA, CLINCHFIELD & OHIO—\$1.25, quarterly, payable July 20 to holders of record July 8.

LEHIGH VALLEY—30¢, quarterly, payable August 19 to holders of record August 5.

PENNSYLVANIA—25¢, quarterly, payable September 12 to holders of record August 8.

Security Price Averages

	June 28	Prev. Week	Last Year
Average price of 20 representative railway stocks	98.86	98.46	67.30
Average price of 20 representative railway bonds	99.25	99.09	95.01

Railway Officers

CANADIAN PACIFIC.—**Norman F. Cowie**, general freight agent, Pacific region, at Vancouver, has been appointed assistant freight traffic manager at Winnipeg, succeeding **J. N. McPherson**, whose promotion to general foreign freight agent at Montreal was reported in *Railway Age* June 13. **E. E. Bartlam**, division freight agent at Calgary, Alta., succeeds Mr. Cowie as general freight agent at Vancouver. **E. J. Wood**, division freight agent at Winnipeg, has been transferred to Regina, Sask., succeeding **T. H. Johnson**, who transfers to Calgary, replacing Mr. Bartlam. **G. H. Hill**, district

freight agent at Victoria, B.C., has been named district freight agent for British Columbia Coast Steamships and service at Vancouver, succeeding **W. H. White**, who succeeds Mr. Wood at Winnipeg. **J. R. Dickson**, city freight agent at Calgary, has been appointed district freight agent at Victoria, succeeding Mr. Hill. **R. D. Matthews**, district passenger agent at Regina, Sask., has been appointed assistant general passenger agent at Montreal, succeeding **C. E. Cameron**, who retires June 30. **George Walsh**, passenger traffic representative at Winnipeg, has been named district passenger agent at St. John, N.B., succeeding **W. E. Clampitt**, who replaces Mr. Matthews at Regina.

G. E. Bales, locomotive foreman at Smiths Falls, Ont., has been promoted to division master mechanic, Montreal terminals, succeeding **R. A. Bailey**, promoted. **A. S. Lavalliere** has been appointed division master mechanic, Farnham (Que.) division, succeeding **R. Grinton**, transferred. **W. Stewart**, district master mechanic, Pacific region, at Vancouver, has been appointed assistant to superintendent of motive power and car department at Calgary, Alta., having responsibility for repair schedules on the road's diesel power in the West. **A. T. Reynolds**, division master mechanic at Calgary, succeeds Mr. Stewart as district master mechanic at Vancouver, and **N. Woolley**, general air brake inspector out of Winnipeg, replaces Mr. Reynolds as division master mechanic at Calgary. **D. R. Langdon**, mechanical instructor at Winnipeg, has been named general air brake inspector, succeeding Mr. Woolley.

R. G. Williamson, district passenger agent at Atlanta, Ga., has been appointed general agent at Buffalo, succeeding **J. J. Trainor**, who has been transferred to Chicago. **H. F. Nelson**, general agent at Chicago, has been named district traffic representative at Atlanta.

ROCK ISLAND.—**W. H. Lloyd**, stores manager at Silvis, Ill., has been appointed purchasing agent at Chicago, succeeding **E. F. Lofvander**, who has retired after 52 years of service. **G. F. Jung**, general storekeeper at Silvis, succeeds Mr. Lloyd as stores manager. **T. E. Conrad**, district storekeeper at Silvis, has been named general storekeeper, replacing Mr. Jung. **A. H. Williams**, stores inspector at Silvis, succeeds Mr. Conrad as district storekeeper.

SANTA FE.—**James Cowie** has been appointed assistant freight claim agent at Chicago, succeeding **C. T. Dodge**, transferred to Los Angeles. Mr. Dodge succeeds **Harold Howarth**, who has been appointed freight claim agent of the Gulf, Colorado & Santa Fe at Galveston, Tex., replacing **R. M. Hood**, deceased.

Kelly M. Fogg, general freight and passenger agent at Phoenix, Ariz., has been named to the newly created position of executive representative at Houston, Tex.

H. V. Gill, superintendent of shops at San Bernardino, Cal., has been transferred to Topeka, Kan., succeeding **John H. Armstrong**, who retired June 1 after 48 years of service. **V. L. Marlo**, master mechanic at Argentine, Kan., succeeds Mr. Gill, and in turn has been succeeded by **J. W. Luke**, who has been transferred from Chicago. **H. N. Chastain**, gen-



L. M. Olson

eral supervisor of diesel engines at Chicago, replaces Mr. Luke.

Kenneth P. Deline has been appointed to the newly created post of system supervisor of carloading at Chicago.

L. M. Olson, assistant to operating vice-president at Chicago, has been appointed vice-president and general manager of the Gulf, Colorado & Santa

Fe at Galveston, Tex., succeeding **J. P. Cowley**, retired. Mr. Olson joined the Santa Fe in 1926 as stenographer at La Junta, Colo. After serving in various capacities he became assistant general manager at Los Angeles in 1948, transferring to La Junta in 1949. He was appointed assistant to operating vice-president in 1953.

Harvey R. Wright, freight traffic manager at Chicago, has been named assistant general freight traffic manager there.

SOO LINE.—**G. A. Ehlers** has been appointed assistant auditor of disbursements with supervision over disbursement, capital expenditure and statistical sections, and **M. C. Mason** has been named assistant auditor of disbursements with supervision over the accounting section. **P. G. Anderson** has been named assistant to comptroller, succeeding **C. A. Johnson**, deceased.

SOUTHERN PACIFIC.—**Edward M. Reidy**, who retired May 31 as general counsel of the **Interstate Commerce Commission**, has been appointed general attorney of the SP at Washington, D.C., succeeding **Stanfield Johnson**, whose appointment as general solicitor of the SP at San Francisco was noted in *Railway Age*, June 13, page 79. Mr. Reidy was born September 18, 1897, at Cambridge, Mass., and received his LL.B. and



Edward M. Reidy

LL.M. degrees at Georgetown University Law School. He joined the ICC in April 1917, holding various posts in the Bureau of Law until 1943, when he was appointed assistant chief counsel. He was named chief counsel of the commission in 1952 and continued as general counsel when the Bureau of Law was reorganized and its name changed to the Office of General Counsel in June 1954.

SPOKANE, PORTLAND & SEATTLE.—**Duncan J. Ritchie**, superintendent motive power, has been appointed general superintendent motive power at Vancouver, Wash., succeeding **C. E. Barnes**, who has retired after 39 years of service. Mr. Ritchie



SOUTHERN PACIFIC.—**E. D. Moody** has been appointed assistant to vice-president of system operations at San Francisco. He was formerly on special duty (*Railway Age*, June 13, page 79).

entered railroad service in 1904 as call boy with the Great Northern. He was with the Russian Railway Service Corps in Japan and Siberia from 1917



Duncan J. Ritchie

to 1919, returning to the GN in 1920, and becoming master mechanic at Willmar, Minn., in 1942. He joined the SP&S as superintendent motive power in April this year.

WESTERN MARYLAND.—Titles affecting 25 members of the traffic department of this road have been changed. The new titles are as follows: Atlanta, Ga.—**W. T. McLendon**, acting district traffic manager; Baltimore—**R. M. Shilling**, district traffic manager; **F. H. Kiesewatter**, foreign traffic representative; and **E. C. Anderson**, coal traffic representative; Buffalo, N.Y.—**L. A. Stossell**, district traffic manager; Chicago—**Ralph Hudson**, assistant western traffic manager; Cincinnati—**O. D. Dreyer**, district traffic manager; Cleveland—**H. J. Bergmann**, district traffic manager; Detroit—**E. W. Bardgett**, district traffic manager; Hagerstown, Md.—**C. E. France**, division traffic manager; **E. A. Lindsay** and **J. H.**

Wyant, division traffic representatives; New York—**R. A. Dennis**, assistant eastern traffic manager; **J. A. Scott**, eastern traffic representative; **J. H. McLaughlin**, district coal traffic manager, and **T. J. Boyle**, foreign traffic representative; Philadelphia—**J. P. Lynch**, district traffic manager; **W. P. Ringsdorf**, assistant district traffic manager; **J. J. Haggerty**, district coal traffic manager, and **B. C. Fisher**, district traffic representative; Pittsburgh—**H. G. Muchlethaler**, district traffic manager; Reading, Pa.—**J. L. Miller**, district traffic manager; St. Louis—**J. J. Jaspers**, district traffic manager; San Francisco—**J. G. Lawless**, district traffic manager; York, Pa.—**C. E. Wallace**, district traffic manager.

George M. Leilich, general superintendent at Baltimore, has been appointed vice-president, operations, succeeding **George R. Haworth**, vice-president and general manager, who retired July 1, after 50 years in railroad-ing.

William C. Schafer, assistant freight traffic manager at Baltimore, has been promoted to freight traffic manager there, succeeding **F. H. N. Heemann**, who retired July 1 after 48 years of service. **Rudolph G. Stiemke**, general freight agent at Baltimore, succeeds Mr. Schafer as assistant freight traffic manager. **Albert F. Forster** has been appointed general freight agent at Baltimore. **Carroll L. Pfeiffer** has been named foreign traffic manager at Baltimore, succeeding **John A. Inglis**, who retired July 1 after 26 years of service. **Charles I. Hughes** has been appointed assistant to foreign traffic manager at Baltimore. **W. G. Young**, general foreign freight agent at New York, retired July 1 after 31 years of service. **H. B. Gillespie** has been named assistant foreign traffic manager and **T. C. Hamrick, Jr.**, has been appointed assistant to foreign traffic manager, both at New York. **Keller McCoskrey**, industrial agent at Baltimore, retired July 1 after 41 years of service. **William E. Johnston** has been appointed manager industrial development at Baltimore. **Arthur E. Bourne**, general freight agent at Pittsburgh, has been named assistant freight traffic manager there. **Arthur J. Leamy**, general western freight agent at Chicago, has been appointed western traffic manager at that point. **Ivan C. Kuhns**, general eastern traffic agent at New York, has been named eastern traffic manager there. **Clarence E. Gehr**, division freight agent at Cumberland, Md., retired July 1 after 46 years of service. **Albert R. Salvato** has been appointed coal traffic representative at Cumberland and **W. D. Hospelhorn** has been named division traffic manager there.

OBITUARY

Walter R. Prass, 65, retired bridge engineer of the **Burlington**, died June 23.

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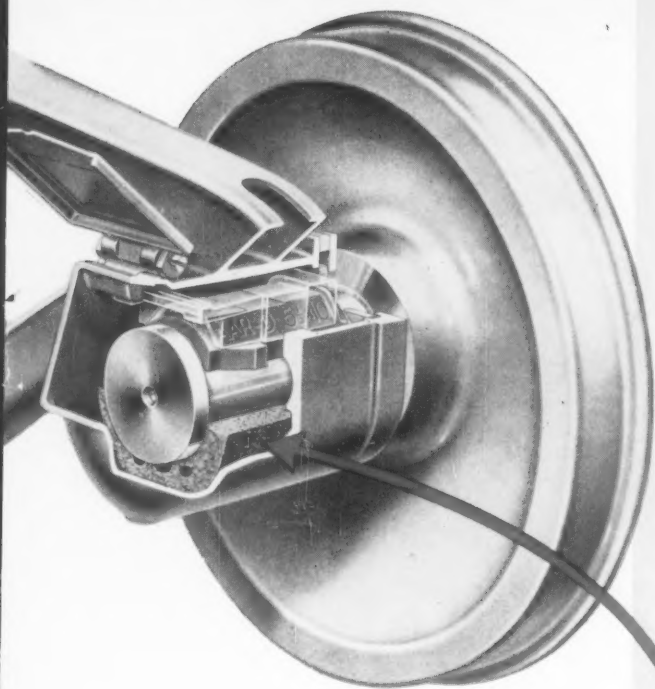
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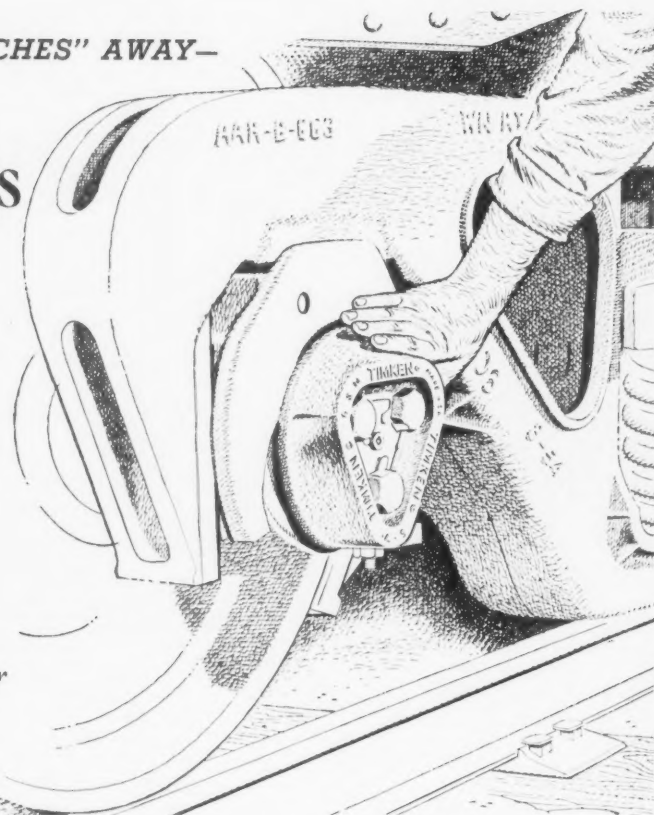


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*... and they pay for themselves over
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Besides ending the hot box problem, the big advantage of Timken bearings is the huge savings in maintenance and operating costs they effect year after year. "Crutches", like friction bearings themselves, require costly maintenance. By contrast, Timken bearings cut terminal inspection time 90%, reduce the cost of lubricant as much as 89%. When all railroads go "Roller Freight", they'll save \$190 million a year, earn a 22% annual return on the investment.

Timken bearings make all these savings possible because they roll the load instead of sliding it. It's the roller bearing design that eliminates the need for frequent inspection and lubri-

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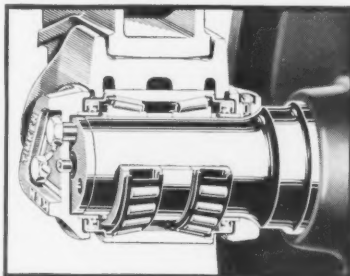
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